POLICY RESEARCH WORKING PAPER 1770

Poverty and Social Transfers in Hungary

Christiaan Grootaert

Hungary's social safety net could be improved to better target benefits to the poor. Among the possibilities for reform: abolish the child care allowance and fee, institute new child care benefits, and improve means testing for social assistance.

The World Bank
Environment Department
Social Policy Division
May 1997

Summary findings

Grootaert's study addresses the question of how well Hungary's system of cash social transfers helps prevent or alleviate poverty — and whether different types of social transfer, or changes in eligibility rules, might better alleviate poverty.

The social safety net in Hungary and other transition economies has undergone important changes. The conventional benchmark for measuring poverty in Hungary — the subsistence minimum — has lost much of its relevance because of the transition to a market economy. Grootaert proposes two other benchmarks: the minimum pension (an absolute poverty line) and a relative poverty line set at two-thirds of mean household spending.

How well targeted to the poor are Hungary's social transfers? The study distinguishes between six components of the social safety net: pensions, unemployment benefits, family allowance, child care allowance, social assistance, and child care fee. Grootaert finds that unemployment benefits and social assistance are well-targeted to the poor. The child care allowance is a progressive social transfer; the child care fee is strongly regressive.

Roughly 91 percent of Hungarian households receive one or more transfers. Hungary's social safety net represents 54 percent of spending in an average household, and provides 38 percent of its income. In its entirety, the social safety net is progressive, but that progressivity does not come cheaply. The average transfer is eight times the minimum that would be needed under perfect targeting.

In other words, there is significant room for reallocating funds for improved welfare of the poor. Among possibilities for reform: abolish the child care allowance and fee, institute new child care benefits, and improve means testing for social assistance.

Data used are from the 1993 Household Budget Survey and the 1992–94 Household Panel Surveys.

This paper — a product of the Social Policy Division, Environment Department — was written as a background paper for the Hungary Poverty Assessment. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Gracie Ochieng, room S5-042, telephone 202-473-1123, fax 202-522-3247, Internet address gochieng@worldbank.org. May 1997. (77 pages)

THE WORLD BANK

Poverty and Social Transfers in Hungary

Christiaan Grootaert

SUMMARY

The objective of this study is to answer the question how the system of cash social transfers in Hungary contributes to preventing or alleviating poverty. This is an important aspect of the external efficiency of the social safety net. The study also undertakes a set of simulations to see how re-allocation of funds across different types of social transfers and changes in the eligibility rules could increase the poverty alleviation impact.

As in other economies in transition, the social safety net in Hungary has undergone important changes. The major one was the introduction of unemployment benefits, as a result of rapidly emerging unemployment. In 1993, Hungary spent 27.7% of its GDP on social expenditures, well above the average for the European Union (21.8%) and for the OECD (22.3%). Cash transfers were 19% of GDP, with more than half going to pensions. The various family and child allowances accounted for 4.2% of GDP, and unemployment benefits were 2.4% of GDP. Reform of the social safety net has become an urgent matter in Hungary, because the current system is no longer fiscally sustainable.

To investigate the distributional impact of the social transfer system, this study utilizes two data sources. The 1993 Household Budget Survey (HBS) is the first HBS which fully incorporates Western economic concepts. It covers the whole non-institutional population of Hungary. The 1992-93-94 Household Panel Survey surveys the same households over time and thus permits to study the dynamics of poverty. Household expenditure per equivalent adult is used as measure of living standard, rather than income, for two reasons. First, there are strong and well-known theoretical advantages to using household expenditure for poverty analysis, because it is deemed to reflect better permanent income. Second, the weight of evidence, from the 1993 HBS as well as from earlier HBS, suggests that the reporting problems are more severe with income. This pertains especially to private sector income.

The conventional benchmark for measuring poverty in Hungary, the subsistence minimum, has lost much of its relevance since transition. In 1993, 58% of the Hungarian population had an expenditure level below the subsistence minimum, which makes it no longer useful as a criterion to identify people in poverty. The CSO has in fact stopped calculating the minimum as of 1995. Poverty has therefore been measured against two other benchmarks: the minimum pension, which serves as absolute poverty line, and a relative poverty line set at 2/3 of mean household expenditure. In 1993, 4.5% of the population had an expenditure level (per equivalent adult) below the minimum pension, and 25.3% had an expenditure level below the relative benchmark.

Poverty Profile

Among **socio-economic groups**, the highest poverty occurs among households where the head is either unemployed, temporarily employed, or dependent on child care benefits as main source of income. About one fifth of such households live in absolute poverty (below minimum pension), and more than 50% are below the relative poverty line (2/3 of mean). Poverty among pensioners is slightly above average, and the lowest poverty incidence occurs

among the three groups with economically active household heads: permanent employees, self-employed and sole proprietors. The latter, who make up 1% of the population, are the richest group in Hungarian society. They have managed to take advantage of the economic opportunities offered by the private sector, following transition. The other extreme is made up by those people who in a sense are the victims of transition: the unemployed and those with only tenuous labor market connection—in all, only 7% of the population lives in such households, but they constitute 30% of the absolute poor.

In households affected by **unemployment**, poverty is higher if the head is unemployed than if another household member is unemployed. If the head is unemployed and unemployment benefits are not received, poverty incidence exceeds 40%, which is 3 times higher than if benefits are received. Households in that situation are not always picked up by other parts of the social safety net, especially social assistance.

The **regional variation** in poverty incidence, is much less pronounced than that across socio-economic groups. Budapest has the lowest poverty incidence, while the predominantly rural North and South Plains have the highest poverty incidence. Poverty is higher in villages than in cities, which is related to the fact that unemployment is higher in villages than in cities. However, regional differences in poverty incidence can be entirely explained by differences in the socio-economic and demographic composition of the population.

Demographic characteristics are important indicators of poverty in Hungary. Poverty incidence is lowest in nuclear households with 1 or 2 children. It rises steadily with the number of children and is especially high in households with 2 adults and 4 or more children, and in households with 3 or more adults and 3 or more children. Among those households, one in five have a level of living below the minimum pension, and more than 70% fall below 2/3 of mean expenditure. The corollary of these observations is that poverty among children is somewhat higher than in the population at large. Poor children live primarily in villages, and in households where the head has low education and no or a temporary link with the labor market. The correlation between poverty and the presence of children in the household, makes the presence of children an important candidate indicator for the targeting of social transfers. In 1993, three transfers (family allowance, child care allowance, child care fee) were based on this criterion.

There is a distinct **gender dimension** to poverty in Hungary. Poverty is higher among female headed households, especially if they are single adults with children.

There is a strong inverse relation between poverty and the **education** of the head of household. Secondary or higher education virtually guarantees a level of living above the minimum pension, and college and university puts all but 5% of people above 2/3 of mean expenditure. Poverty is significantly worse than average in households where the head has only primary education or less—and almost 1/3 of the population lives in households in that situation.

The **poverty gap** is quite low in Hungary: 11.7% of the minimum pension and 16.2% of the relative benchmark. This is a result of the high density of the expenditure distribution, especially in the range between one half of the mean and the mean. This also reflects a significant degree of success of the social safety net in preventing pockets of deep poverty.

In terms of the **dynamics of poverty**, there appears to be a good degree of mobility: only 31% of households remained in the same income decile between 1993 and 1994, while 18% went down two or more deciles and 19% went up two or more deciles. Most of the mobility occurred in the middle of the distribution. Both the top and bottom were much more stable. In the bottom three deciles, where most of the poor are located, 40% of households stayed in the same decile. Among the poorest decile, 57% stayed.

The Beneficiaries of the Social Safety Net

This study has distinguished six components of the social safety net: pensions, unemployment benefits, family allowance, child care allowance, social assistance and child care fee.

Pensions are the most commonly received social transfer. All pensioner households of course receive pensions, but so do about one fourth of all other socio-economic groups. The second most commonly received social transfer, by 44% of household, is the **family allowance**. The coverage of households with children is virtually perfect, reaching 99% or 100% in all but one category of households. (That category is one adult with children, were a mere 4% of households do not receive the allowance). The **child care allowance** and the **child care fee** are paid to mothers on leave from work. Respectively 7% and 4% of households receive these benefits. **Unemployment benefits** are received by 16.2% of households, and by 90% of households where the head is unemployed. There is a concentration of beneficiaries in households with more than two adults and/or more than 3 children. This suggests an unfortunate coincidence of large household size and broken links with the labor market—both strong determinants of poverty. Lastly, **social assistance** is received by 23% of households although in terms of money it is the least important social transfer. Generally it is received more in groups with high poverty incidence, but there are exceptions. Most notably, 26% of sole proprietor households receive social assistance, even though this is the richest group with the lowest poverty incidence.

How well targeted to the poor are these social transfers? About 60% of households below the minimum pension receive a **pension**. The figure rises to 65% for households between the minimum pension and the relative poverty line, and declines thereafter. The average pension received by poor households is 135,857 HUF/year, which is well above the minimum pension, but the amount contributes of course to the expenditure of the entire household. The average pension received by a household above the subsistence minimum is 200,310 HUF/year. Thus a higher percentage of poor households receive pensions, but the amount they receive is lower (which of course partly explains their poverty). The concentration coefficient of pensions is -0.06, which indicates that pensions in Hungary

contribute to reducing inequality in the distribution of living standards in both an absolute and relative way.

Unemployment benefits are strongly targeted to the poor: 27% of the poorest households receive them, against only 13% of non-poor households. The average annual benefit is 80,000 HUF and does not vary much by expenditure level of the recipient.

The **family allowance** is a universal benefit, and neither its incidence of receipt nor the amount received varies with the expenditure level of the recipient household. There is a marked difference in the incidence patterns of the **child care allowance** and the **child care fee**. Both are paid to mothers who stay away from work, but the allowance is a fixed amount, while the fee is a proportion (65-75%) of the previous wage and it requires at least one full year of previous work and social security contributions. As a result, the child care allowance is a progressive social transfer, while the child care fee is strongly regressive.

Lastly, **social assistance** is well targeted towards the poor: 39% of households below the minimum pension benefit from social assistance, against 19% of household above the subsistence minimum. In addition, the amounts received by the poorest households are larger. The amounts are especially high for households with 3 or more children.

Looking at the social safety net in its entirety, 91% of Hungarian households receive one or more transfers, for an average amount of 162,238 HUF/year. **The social safety net in Hungary represents 54% of the expenditure of an average household, and provides 38% of its income.** This is a very high figure, even for a post-socialist economy (in Poland, for example, the equivalent figure for expenditure is 45%). Pensions are the lion's share (74%) of this, and by themselves contribute 40% to household expenditure. The family allowance contributes 7%, and unemployment benefits 4%. The remaining benefits constitute about 3% of household expenditure.

In total, the social safety net is very progressive, representing 117% of the expenditure of the poorest households, and 30% of the expenditure of the non-poor, for a ratio of 3.9:1. The equivalent figures for income are 66% and 27%—a ratio of 2.4:1—so the progressivity remains regardless of whether household expenditure or income is used to measure the living standard of households. The respective concentration coefficients are—0.05 and -0.02, so that the social safety net in Hungary contributes to equalizing both the distributions of household income and expenditure, in both a relative and absolute way. Social assistance and unemployment benefits are the most pro-poor transfers, while the child care fee is the least pro-poor transfer.

This progressivity however, does not come cheaply. Each poor person reached by the safety net requires on average 90,900 HUF of transfers, and each poor person lifted out of poverty requires 156,250 HUF (excluding administrative costs). This compares to an average poverty gap of 19,680 HUF, and means that **the average transfer is eight times the minimum that would be needed under perfect targeting**. While some of this difference

stems from the fact that many transfers do not have explicit poverty alleviation objectives, targeting failure (leakage) in those programs that do aim to reach the poor is clearly present.

Closing the Poverty Gap

The success of a social transfer system is not only measured by the degree to which the benefits are received by the poor, but also by the extent to which it contributes to **closing the poverty gap**. This depends on the extent to which transfers go to people or households who are poor *prior to* the receipt of the given benefit (ex-ante targeting) and on the amount of the benefit in relation to the poverty gap. The social transfer system in Hungary is fairly successful in ex-ante targeting, but a substantial degree of leakage still occurs. As far as non-pension transfers are concerned, 30% or more of current recipients of social transfers in Hungary were above the subsistence minimum even before they received the transfer. Only in the case of unemployment benefits, was the figure lower (20%). This means that from 16% to 38% of all transfers went to households who were above the subsistence minimum prior to the receipt of the transfer. If one uses the relative poverty line (2/3 of mean household expenditure) as benchmark rather than the subsistence minimum, the leakage represents from 36% to 65% of funds. **This suggests that there is significant room in the system for reallocation in favor of the poor.**

The reform measures which the Government of Hungary announced in March 1995 address some of these concerns. They include the introduction of means-testing for the family allowance, which, if implemented effectively, could reduce the leakage in that component significantly. However, other measures could also be envisaged. In the case of the family allowance, the upper age limits (16 years, and 20 years for full-time students) seem excessively generous, and a reduction could free up resources for targeted programs. Even though social assistance is the best targeted of all social transfers, it is intended to be available only to poor households and this is clearly not the case. More effective means-testing should make it fairly easy to at least screen out the richer households, and the freed-up resources could be redistributed to the poor. In general, the role of social assistance as a poverty alleviation tool could be enhanced. Currently, it absorbs only 2.5% of the total resources of the social safety net, and even for the poorest households, it rarely represents more than 5-7% of their expenditure.

For those recipients of social transfers who are poor prior to the receipt of the transfer, one can ask the question how many of them are moved above the poverty line as a result of the transfer. Because **pensions** are by far the largest component of the safety net, it is not surprising that they contribute the most to keeping people out of poverty: 62% of households who receive pensions are lifted above the poverty line (2/3 of mean expenditure) because of the pension.

The second best poverty alleviation effect (43%) is achieved by the **child care fee**. This might at first sight be surprising given that this is the most regressive transfer in the system. The explanation is that the average amount of the child care fee is quite high: 86,112 HUF/year, because it is a wage-replacement amount. Therefore, the absence of this amount

can and does often make the difference between being poor or not. The effect is particularly strong in Budapest.

Unemployment benefits and the **family allowance** each lift 39% of pre-transfer poor recipients out of poverty. This figure is fairly uniform across different parts of the country, but it varies a lot across types of households. In the case of households consisting of 2 adults and 3 children (where coverage of the allowance is 100%), 49% of those who are poor prior to the allowance are lifted above the poverty line. This figure drops to 21% of households with 4 or more children, reflecting that the amount is insufficient, so that poverty among them remains high.

Social assistance is the most progressively distributed transfer, but it has the lowest poverty alleviation effect. This is mainly the result of the low amounts of money per recipient household (18,207 HUF/year on average). This supports that the poverty alleviation role of social assistance needs to be strengthened, both by increasing financial resources available to it (from savings in other parts of the system) and by better targeting.

A further assessment of the social safety net's ability to help the poor can be made by showing the **transfers received by the poor as a fraction of the poverty gap**. In total, the social transfers received by the poor (below the relative poverty line) are 288% of the (remaining) poverty gap. This means that **without the transfers, the poverty gap would be almost 3 times larger**. However, the transfers received by non-poor people above the subsistence minimum are almost 4 times larger the than poverty gap. The family allowances received by these households would by themselves almost be sufficient to cover the entire poverty gap. This clearly points at the importance of the reforms of the family allowance proposed by the Government.

Modifying the Social Safety Net

In March 1995, the Government of Hungary announced several proposals to modify the social safety net. The main innovation is the introduction of **means testing for the family allowance and child care benefits**. An income cap for eligibility for the family allowance is introduced, equal to 25,000 HUF gross income per month per capita, prior to the receipt of the family allowance. If the household contains two wage earners and one child, the family allowance is payable only until the child's sixth birthday. The child care allowance and the child care fee are abolished; a new child care benefit is introduced, equal to the minimum pension, and payable until the child's third birthday, in households under the income cap applicable for the family allowance.

The new income cap removes the eligibility of 26% of households, i.e. 74% of households fall below the cap. The effect of introducing the income and age eligibility caps on poverty is slight: with the minimum pension as benchmark, poverty incidence is unchanged in the aggregate, and with the relative benchmark, it rises from 25.3% to 26.5%. Among the very poor, the effect is felt strongest in households with 3 or more adults and 1-2 children and in households of temporary employees. In the latter, poverty rises from 19.3% to 22.1%.

The introduction of the income cap would lead to budgetary savings of about 22%, and some of these funds could be reallocated and targeted to high poverty groups. The poverty profile identified pockets of high poverty in households with 3 or more children, in households where there are 2 or more unemployed members, and in households where the head has less than primary education. The family allowance could be increased for households meeting these conditions.

Simulation of the effect of such increases shows that only targeting by the number of children would lead to a significant reduction in overall poverty incidence (by 0.7 percentage points relative to the minimum pension and by 1.3 percentage points relative to the higher benchmark). The other two modes of targeting are virtually poverty-neutral in the aggregate. Of course, different types of households would be affected differently. For example, targeting by the number of unemployed has a strong poverty alleviation effect in the largest households—those with 3+ adults, since unemployment is concentrated there. Targeting by education is the only approach which leads to significant poverty reduction among the temporary employees.

In general, the results suggest that significant poverty reduction can be achieved with indicator targeting, but it also suggests that using a family allowance, i.e. basing the amount of social transfers on the number of children, is not always efficient from the poverty perspective. A general income supplement, or increased social assistance may be more effective in reaching households where unemployment or low education is the main cause of poverty.

The **abolishment of the child care allowance and fee and the institution of the new child care benefit** would lead to budgetary savings in excess of 50%, but would increase poverty from 4.5% to 5.2% below the minimum pension, and from 25.3% to 26.6% below the relative poverty line. Most seriously affected are households with many children, with unemployed heads, and, by definition, those dependent on child care benefits. For example, in households with 2 adults and 4+ children, poverty incidence increases from 19% to 27%, and in households with 3+ adults and 3+ children, poverty incidence almost doubles to 40%. There is thus a risk that this part of the reform proposal will hurt some poor groups. The replacement benefit appears to be too low and/or insufficiently targeted towards the poor.

Social assistance could be given a greater role in poverty alleviation. It should be possible to **improve the means-testing for social assistance**, and if, for example, leakage of funds to households above the government's new income cap could be eliminated, it would create a fund which could be reoriented towards the poorest recipients. The amounts saved under such scenario constitute 36% of social assistance now received by those below the relative poverty line and 136% of social assistance received by households below the minimum pension. Allocating these funds proportionately to current receipts, would reduce poverty respectively by 0.6 and 0.9 percentage points.

I. Background and Objectives

This paper aims to answer the question how the system of social transfers in Hungary contributes to preventing or alleviating poverty. This is an important aspect of the external efficiency of the social safety net (the internal efficiency of the system has been investigated in World Bank, 1992). The paper will also undertake a set of simulations to see how re-allocation of funds across different types of social transfers and changes in the eligibility rules could increase the poverty alleviation impact. It must be noted that the scope of this paper is limited to cash transfers.[1]

As in other economies in transition, the social safety net[2] in Hungary has undergone important changes. The major one is the introduction of unemployment benefits, as a result of rapidly emerging unemployment. From a mere 2% in 1991, unemployment rose to 12% of the labor force in 1994. A detailed description of Hungary's social transfer system as it operated in 1993, is given by Ministry of Finance (1993), and need not be repeated here. For this study, we have grouped the different elements of the safety net in six categories:

- Pensions (retirement and disability)
- Unemployment benefits
- Family allowance (including maternity allowance)
- Child care allowance
- Social assistance
- Child care fee

In 1993, Hungary spent 27.7% of its GDP on social expenditures, well above the average for the European Union (21.8%) and for the OECD (22.3%). Cash transfers were 19% of GDP, with more than half going to pensions. The various family and child allowances accounted for

[1] Transfers in-kind occur mainly through the provision of education and health care, and through consumer subsidies. Although important education and health subsidies still exist in Hungary, the relative importance of in-kind transfers has been decreasing.

[2] The terms "social safety net" and "social transfer system" are used interchangeably in this paper.

4.2% of GDP, and unemployment benefits were 2.4% of GDP. The cost of the social safety net has risen significantly in recent years. The cash transfers component went from 14.9% of GDP in 1990 to 19.0 % in 1993. This was only partly offset by a decline in the share of GDP going to subsidies.

Reform of the social safety net has become an urgent matter in Hungary, because the current system is no longer fiscally sustainable. Such reforms, especially in the pension system, are discussed in detail in World Bank (1995). In this paper we estimate the impact on poverty of proposals to reform the other cash transfers.

This paper is organized as follows. In the following section, we review the data sources and methodological considerations, especially relating to the choice of household income or expenditure as basis for the analysis. Section 3 contains the profile of poverty in Hungary. In section 4, the amount of transfers and the distribution of beneficiaries are examined. The impact of each component of the social safety net on poverty is estimated in section 5. Section 6 simulates possible changes in this impact stemming from selected proposals to reform the system.

II. Data and Methodological Considerations

This study utilizes two data sources: the 1993 Household Budget Survey (HBS) and the 1992-93-94 Household Panel Survey (HPS).

The 1993 HBS, which is the main data source, is part of a tradition of budget surveys undertaken by the Central Statistical Office (CSO) since the early 1950s. The surveys are conducted every two years, and 1993 is the first HBS which fully incorporates Western economic concepts. The 1993 sample is about 9000 households, selected in a two-stage stratified design, and covering the whole non-institutional population in Hungary. The HBS is the basis of the poverty profile and the incidence analysis of social transfers in the following sections.

The HPS is a panel survey conducted by TARKI (Social Research Information Center), aimed at following changes in the social and economic conditions of Hungarian households. The HPS' main advantage is that it follows the same households over time and thus permits to study the dynamics of poverty. It is this feature of the data which is utilized in this report. The drawback is that the sample size is only 2000 households, which limits the amount of disaggregation in the analysis.

The most important methodological point to be addressed is whether household income or expenditure should be used as basis for the analysis. Most previous work on poverty and social transfers in Hungary has relied on income (for example, Szivos, 1994, Toth et al., 1994, Van De Walle et al., 1994, Milanovic, 1991). The main reason for this was the high quality of income data in past Hungarian household surveys, stemming in part from the fact that wages in the state sector and government transfers used to be the main sources of income and these could easily be cross-checked at the firm or state level. Since transition, this has changed, and a variety of private sector incomes have emerged. It is well known that there is a large "black" or "grey" economy operating in Hungary, which largely escapes taxation and recording in official statistics. Even fully legal and known own account activities are often missed in household income surveys. In a detailed comparison of survey income figures with macro-economic aggregates, Revesz (1994) found that wage earnings were fairly well reported in the 1989 and 1991 HBS (91% and 86% of the macro-total, respectively), but self-employment income was underreported by as much as 80%.

A similar analysis has not been done yet for the 1993 HBS, but the survey results suggest that the problem of underreported income from own account activities has remained. According to Table 1, reported household income and expenditure (adjusted for the size and composition of households—see below) in the 1993 HBS are identical. This is the case in Budapest as well as in the rest of the country. There are however some differences according to socio-economic category. For groups where wages and pensions are the main sources of income, the difference between average income and expenditure is small. For the self-employed and sole proprietors, expenditure exceeds income by almost 30%, most likely as a result of underreported income. For

poorer groups, such as households headed by an unemployed person or those relying on child care benefits as main source of income, expenditure exceeds income probably as a direct result of the low level of income, necessitating borrowing or dissaving.

Table 1. Average household expenditure and disposable income per equivalent adult (HUF per year).

	Household expenditure per equivalent adult	Household income per equivalent adult	Expenditure as percentage of income
Budapest	200,598	201,690	99.5%
Towns	183,801	182,944	100.5%
Villages	171,284	171,263	100.0%
Permanent employee	200,996	204,861	98.1%
Temporary employee	133,401	133,130	100.2%
Self-employed	227,440	179,542	126.7%
Sole proprietor	267,701	207,277	129.2%
Unemployed	136,548	120,267	113.5%
Pensioner	155,807	158,844	98.1%
Child care receiver	170,008	139,388	122.0%
Other	165,618	155,434	106.6%
Country	182,771	182,643	100.1%

This equality between average household income and expenditure in the HBS results raises questions because it does not correspond to the economic reality as captured in the national accounts. According to these, total household consumption was roughly 1900 billion HUF and total household income was 2200 billion HUF, implying an aggregate saving rate of about 14% (see Szivos, 1995).

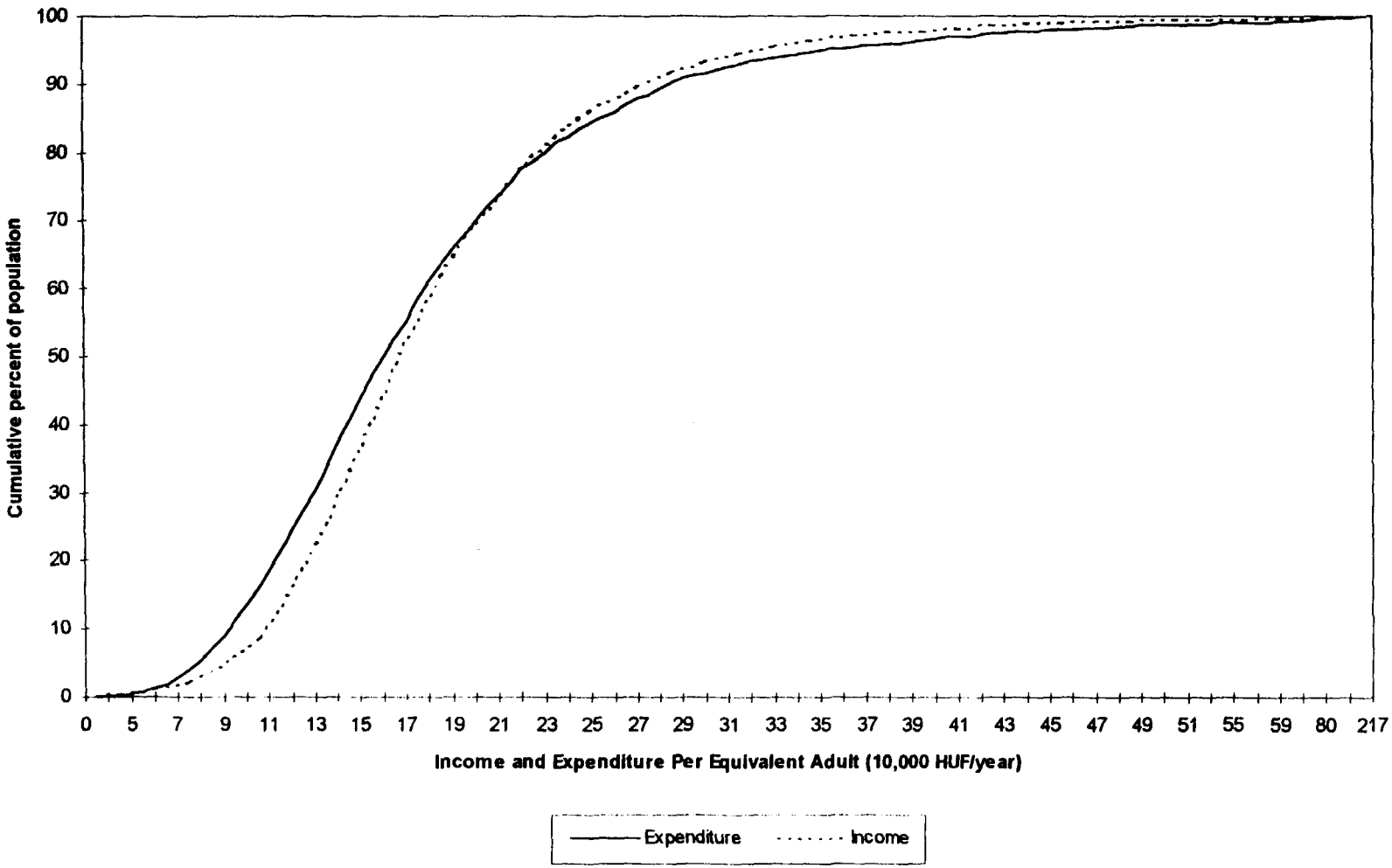
There is a further disturbing result in the 1993 HBS data. Annex table A1 shows the distribution of income and expenditure by ventiles (5% of the population). The figures imply that the distribution of expenditure is less equal than that of income—a highly unusual result. The Gini-coefficients are 0.21 for income and 0.26 for expenditures. Figure 1 plots the distributions.

Observations from almost all countries—developed and developing—suggest that the distribution of expenditure is more equal than that of income because typically the rich save and the poor (and often the middle classes) dissave. If the HBS results correspond to economic reality, the reverse would be true in Hungary. Since income is disposable income, it would mean that the income tax system is very progressive in Hungary to the point of pulling the highest incomes below expenditure, while at the same time the social transfer system is so generous that it pushes the income of the poor above their expenditure level. Alternatively, the HBS results could reflect reporting errors, in particular underreporting of income by the rich and underreporting of expenditure by the poor. The former is very likely, and consistent with the numbers in Table 1. Evidence in Hungary as well as in other transition economies suggests that private sector incomes have the most unequal distribution, and these are the incomes which the rich are likely to hide. Underreporting of expenditures by the poor is less self-evident, but it is possible, to the extent that people with low education, the elderly, and others who may have difficulty reporting expenditures accurately are concentrated among the poor. Such difficulties could arise in filling out the HBS diary forms or simply in recalling expenditures.

The selection of income or expenditure as measure of household living standard will thus have an impact on calculated poverty statistics as well as on indicators of the targeting of social transfers. The difference could be significant. Figure 1 shows that up to a benchmark of approximately 200,000 HUF/year, the selection of expenditure as criterion will lead to higher poverty estimates than if income is selected. Moreover, households are ranked differently by the two distributions: the Pearson correlation coefficient between household income and expenditure is 0.71.[3] This means that the pattern of poverty will not be the same with the two criteria.

[3] This is actually a fairly high correlation as far as household survey data are concerned. In comparable data sets in other Eastern European and FSU Countries, correlations as low as 0.2 have been observed.

Figure 1: Cumulative Distribution of Income and Expenditure



All this shows that there are some problems with the HBS data, although it does not take away from the fact that it is the best data source available in Hungary to study poverty and social transfers. It should also be emphasized that such problems are by no means unique to the Hungarian HBS. In fact, they are typical of almost all household surveys which collect both household income and expenditure, although of course the extent of divergence between the two measures differs. Practically, the existence of these data imperfections does not absolve us from deciding whether to use income or expenditure as basis of the analysis. The choice has been to use expenditure for two reasons:

- There are strong and well-known theoretical advantages to using household expenditure for poverty analysis, because it is deemed to reflect better permanent income (for example, see Deaton and Muellbauer, 1980);

- The weight of evidence, from the 1993 HBS as well as from earlier HBS, suggests that the reporting problems are more severe with income. This pertains especially to private sector income (however, it is clear that further research into this question is needed).

The use of household expenditure as basis to measure the well-being of households requires that two factors be taken into account: household size and composition, and differences in prices faced by different households. The former has been done by expressing expenditure on a per equivalent adult basis. The OECD-scale has been used (first adult =1; other adults =0.7; children less than 14 years = 0.5). This scale corresponds closely to the one implicit in the calculation of subsistence minima by the CSO for different types of households. We also addressed the question whether prices differ in different parts of Hungary. While no official statistics are available to that effect, the answer appears to be negative, which is plausible given that Hungary is a small country with good means of transportation.[4] Hence this study is based on nominal expenditure as collected in the survey. This is consistent with use of HBS data in Hungary (for example, see Szivos, 1995).

[4] A study for Poland found that regional price variation does not exceed 2% for the average consumption bundle as a whole (Grootaert, 1995).

III. Poverty Profile

Poverty Lines. Hungary does not have an official or widely accepted poverty benchmark. The CSO calculates regularly subsistence minima for different types of households, but the usefulness of this benchmark for poverty analysis has been reduced over time, because a rapidly growing number of people have come to fall below it. In 1993, 58% of the Hungarian population had an expenditure level below the subsistence minimum (which in 1993 was on average 14,595 HUF/month, or $159 at the then prevailing exchange rate of $1 = 92.04 HUF). It may be startling at first to think that over half the Hungarian population live below a "subsistence minimum", but it has to be remembered that the calculation method of this minimum pre-dates transition, and the methods do not reflect adequately the realities of a market economy. In fact, in 1995, the CSO discontinued the calculation. In recent years, the real value of the subsistence minimum had increased to where, in 1993, its average value was barely below average household expenditure for the country. Clearly, this makes it difficult to interpret this figure as a genuine "subsistence minimum," meaning that those below it live in absolute poverty, and this explains why such a high percentage of the population fall below it.[5] Within the benchmarks utilized in the social transfer system, only the minimum pension has a poverty connotation, as it implies the minimum needed sum of money for a single retired adult to live on. In 1993, the minimum pension was 6,000 HUF/mo in January and February, 6,400 HUF/mo from March to August, and 6,600 HUF/mo from September to December, for an average of 6,400 HUF/mo. Only 4.5% of people lived below this level, meaning that it can be used to identify the poorest individuals in Hungary (Table 2).

Table 2 also shows two relative poverty lines i.e. lines derived from the data itself. Relative poverty analysis often uses a set fraction (1/3, 1/2, 2/3) of mean expenditure as poverty benchmark. In Hungary, 9.3% of the poor had an expenditure level below half the mean (7,597 HUF/mo or $83), and 25.3% fell below 2/3 of the mean (10,129 HUF/mo or $110). This big

[5] The same phenomenon has been observed in other transition economies. In Poland, for example, 55% of the population had expenditure levels below the "social minimum" in 1993 (Grootaert, 1995).

jump in poverty incidence when the benchmark is moved from 1/2 to 2/3 of the mean confirms what the plot of the full distribution in Figure 1 already showed, namely that the Hungarian expenditure distribution is extremely dense in the middle range. In fact, about 50% of the population is situated between half the mean and the mean. This means that poverty counts will be very sensitive to where precisely the poverty benchmark is set. In that range, on average, each increase of the poverty line by 500 HUF/mo will increase the poverty head count by 3.5 percentage points. For that reason, the analysis below will focus on the profile of poverty and investigate whether it differs as the poverty line changes. In particular, we shall use the minimum pension and 2/3 of average expenditure as poverty lines.

Table 2. Incidence and depth of poverty, for alternative poverty lines.

	Minimum pension (6,400 HUF/mo)	1/2 of mean expenditure (7,597 HUF/mo)	2/3 of mean expenditure (10,129 HUF/mo)	Subsistence minimum (14,595 HUF/mo)
	Headcount of poverty			
Budapest	2.7%	6.9%	21.1%	49.6%
Towns	3.7%	7.9%	23.6%	57.4%
Villages	6.2%	12.1%	29.2%	63.8%
Country	4.5%	9.3%	25.3%	58.3%
	Poverty gap			
Budapest	9.7%	11.6%	14.9%	21.4%
Towns	10.6%	12.6%	15.3%	20.9%
Villages	12.8%	14.1%	17.5%	22.7%
Country	11.7%	13.2%	16.2%	21.8%

Note: Headcount of poverty is the percentage of people below the poverty line; poverty gap is the poor's average shortfall of household expenditure per equivalent adult as a percentage of the poverty line.

The poverty gap (the poor's average shortfall of household expenditure relative to the poverty line) is quite low in Hungary: 11.7% of the minimum pension and 16.2% of the relative benchmark (Table 2). This means that the average person with a level of living below the minimum pension has a shortfall of about 750 HUF/mo ($8) and the average person below 2/3 of the mean has a shortfall of about 1,640 HUF/mo ($18). This finding is of course consistent with

(and a result of) the high density of the expenditure distribution in the relevant range. Low poverty gaps, and the implication of "shallow" poverty have been found in other transition economies as well. In Poland, for example, the poverty gap was estimated in the 13-16% range for similar poverty benchmarks.

In the rest of this section, we look at the incidence of poverty and the distribution of the poor along location, socio-economic, and demographic characteristics of the population.

Table 2 shows that poverty incidence, as well as the poverty gap, is lowest in Budapest, and highest in villages. The difference is most pronounced at the minimum pension: less than 3% of Budapest residents fall below this level, but more than 6% of rural residents do so.

Poverty and Socio-Economic Status. There are significant differences in poverty incidence across socio-economic groups[6] (Table 3 and Figure 2A-B). The highest poverty occurs among households where the head is either unemployed, temporarily employed, or dependent on child care benefits as main source of income. About one fifth of such households live in absolute poverty (below minimum pension), and more than 50% are below the relative poverty line (2/3 of mean). Poverty among pensioners is slightly above average, and the lowest poverty incidence occurs among the three groups with economically active household heads: permanent employees, self-employed and sole proprietors.[7] Only about 2% of them fall below the minimum pension, but there is more differentiation at the higher poverty line: only 5% of the sole proprietors fall below it against 23% of the self-employed. Clearly, the sole proprietors, who make up 1% of the population, are the richest group in Hungarian society. They have managed to take advantage of the economic opportunities offered by the private sector, following transition. The other extreme is made up by those people who in a sense are the victims of transition: the unemployed and

[6] The socio-economic categories are based on the status of the head of household. This implies some limitations of the categorization. For example, unemployed people are found throughout all socio-economic groups, not only in the "unemployed" group, i.e. where the head is unemployed. Likewise, employees can be found in pensioner households and vice versa.

[7] Self-employed are defined as workers for their own account, while sole proprietors own enterprises which also hire employees.

those with only tenuous labor market connection—in all, only 7% of the population lives in such households, but they constitute 30% of the absolute poor (Table 4 and Figure 2C-E).

Table 3. Poverty incidence and poverty gap by socio-economic group.

	Below minimum pension (6,400 HUF/mo)		Below 2/3 of mean expenditure (10,129 HUF/mo)	
	Headcount	Poverty gap	Headcount	Poverty gap
Permanent employee	2.6%	9.5%	18.7%	13.8%
Temporary employee	19.3%	15.1%	51.3%	22.5%
Self-employed	2.0%	10.5%	22.6%	12.9%
Sole proprietor	2.0%	4.4%	4.7%	14.4%
Unemployed	17.5%	12.8%	57.4%	20.1%
Pensioner	5.7%	14.2%	35.7%	18.3%
Child care receiver	23.6%	7.0%	54.8%	20.4%
Other	9.5%	12.9%	35.6%	16.9%
Country	4.5%	11.7%	25.3%	16.2%

Note: Headcount of poverty is the percentage of people below the poverty line; poverty gap is the poor's average shortfall of household expenditure per equivalent adult as a percentage of the poverty line. Socio-economic group classification is based on the status of the head of household.

Table 4. Distribution of the poor by socio-economic group.

	Below minimum pension (6,400 HUF/mo)	Below 2/3 of mean expenditure (10,129 HUF/mo)	Share of each socio-economic group in total population
Permanent employee	37.6%	47.8%	64.6%
Temporary employee	4.3%	2.0%	1.0%
Self employed	2.1%	4.1%	4.6%
Sole proprietor	0.4%	0.2%	0.9%
Unemployed	20.3%	11.7%	5.2%
Pensioner	27.6%	30.2%	21.4%
Child care receiver	4.8%	2.0%	0.9%
Other	2.9%	1.9%	1.3%
All	100.0%	100.0%	100.0%

Note: Socio-economic group classification is based on the status of the head of household.

Figure 2A: Poverty Incidence (Headcount) and Poverty Gap by Socio-economic Status of the Household Head - Below Minimum Pension -

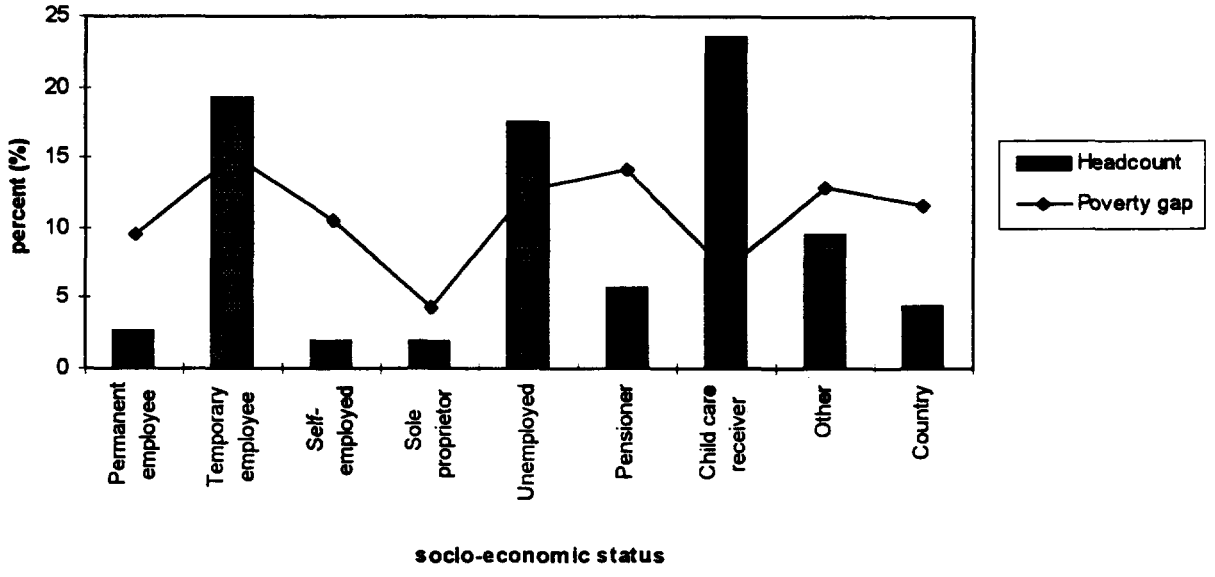


Figure 2B: Poverty Incidence (Headcount) and Poverty Gap by Socio-economic Status of the Household Head - Below 2/3 of Mean Expenditure -

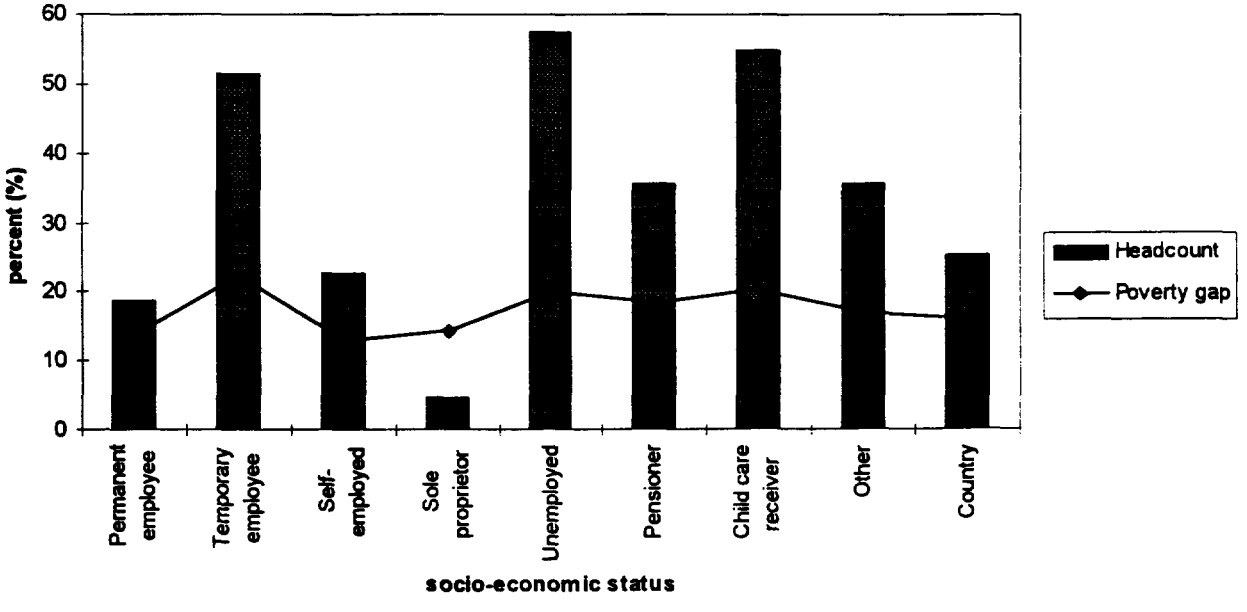


Figure 2C: Distribution of the Poor by Socio-economic Status of the Household Head - Below Minimum Pension -

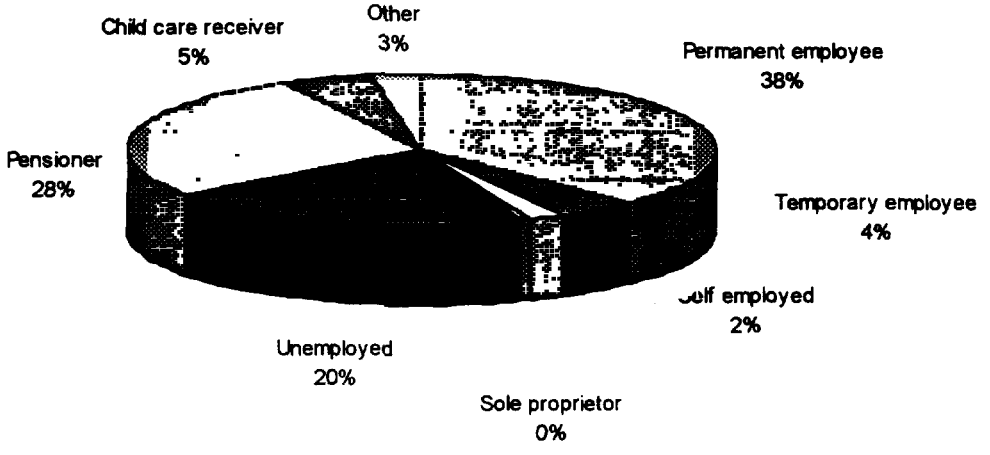


Figure 2D: Distribution of the Poor by Socio-economic Status of the Household Head - Below 2/3 of Mean Expenditure -

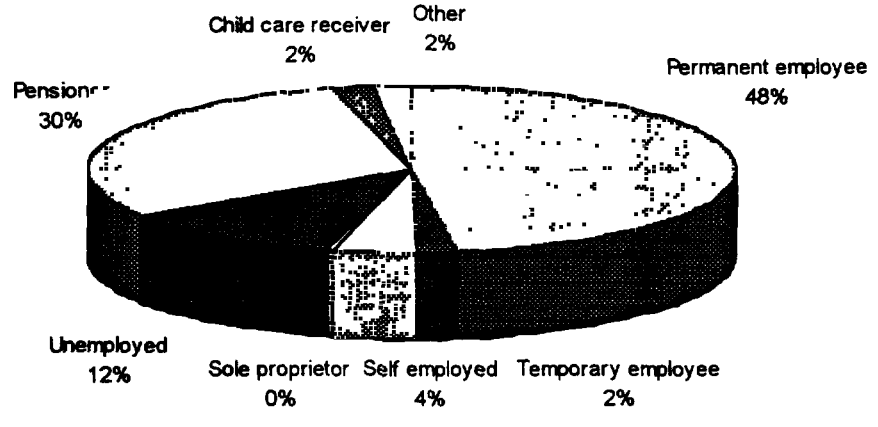
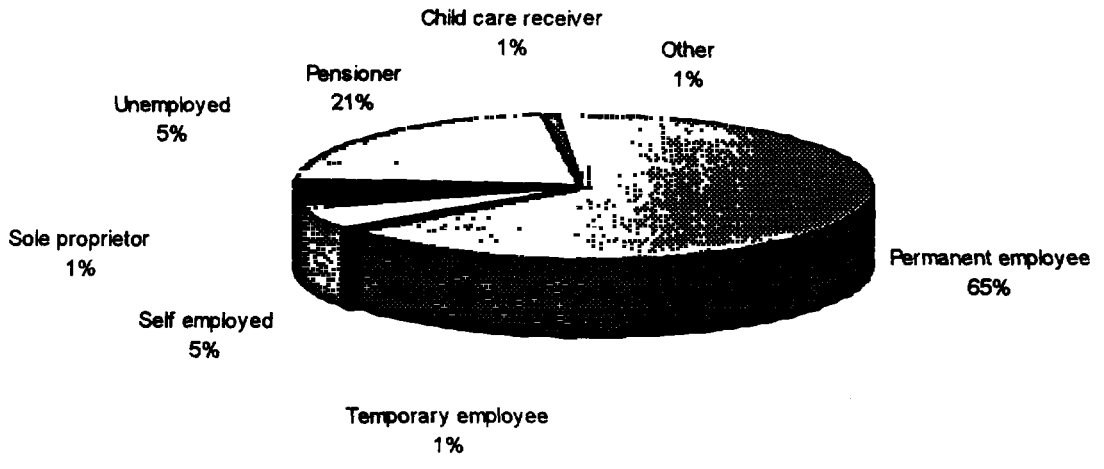


Figure 2E: Share of Each Socio-economic Group in Total Population



In terms of poverty alleviation policy, these households are obvious target groups. They can be reached well with indicator targeting (i.e. targeting based on status only, without means testing). Leakage to non-poor households will be limited, because fewer than 20% of such households have an expenditure level above the subsistence minimum. However, the situation is more difficult for the poor in households headed by a pensioner or permanent employee. These actually make up the bulk of the poor (65% of the absolute poor and 78% of the relative poor). This happens in spite of the low poverty incidence among them because households headed by pensioners and by permanent employees make up 86% of the total population. Within those groups, other socio-economic or demographic characteristics can further identify the poor.

The households with the highest poverty incidence also have the largest poverty gaps, so that they face a double jeopardy: they have the highest risk of being poor and their poverty is deeper than that of other poor groups. Nevertheless, the differences in poverty gaps across socio-economic groups in Hungary are not large by international standards, although they are larger than in some other transition economies such as Poland. The earlier stated observation that poverty is shallow remains true and indicates that the social safety net in Hungary has been effective in preventing any one group from falling very much below the poverty line, regardless of the cause of poverty.

This has to be considered in targeting. Where the poverty gap is even across groups, resources can be targeted mainly on the basis of differences in poverty incidence, even if the objective is to reduce both poverty incidence and the severity of poverty. However, where the poverty gap varies across socio-economic groups, resources should be targeted according to the product of the poverty headcount ratio and the expenditure gap ratio (see for example, Grootaert and Kanbur, 1990, and Kanbur, 1989 for a discussion of targeting rules). Groups with deeper poverty should receive a larger share of resources than suggested by the poverty incidence alone, because of the larger expenditure gap.

Poverty and the Labor Market. Tables 3 and 4 highlight that the link with the labor market is an important correlate of poverty status. Although a thorough investigation of the links between poverty and labor market participation falls outside the mandate of this paper, we do want to highlight the role of unemployment. As we said earlier, unemployment is a recent phenomenon in Hungary, and its rapid emergence is one of the reasons behind the rising cost of the social safety net.

Unemployment is pervasive in almost every socio-economic group in Hungary (Table 5): 15-20% of households where the head is economically active have an unemployed member, and 1-2% have 2 or more unemployed members. The incidence is much higher though in households where the head is unemployed or dependent on child care benefits as main source of income. The coverage of unemployment benefits is quite high: 76% of households where there is one unemployed member receive unemployment benefits, and 88% of those with multiple unemployed members receive them. (The fact that some households without unemployed members receive benefits results from the fact that the Household Budget Survey uses a longer reference period for income sources than for the determination of unemployment status.)

The relation between unemployment and poverty incidence is clear from Table 6 and Figure 3, which classify households by whether or not the head is unemployed, by the number of unemployed household members, and by whether or not the household receives unemployment

benefits. Several observations emerge. First, poverty is higher if the head is unemployed than if another household member is unemployed. Second, if the head is unemployed, unemployment benefits make a large difference in the incidence of poverty below the minimum pension. In households without benefits, poverty incidence exceeds 40%, which is 3 times higher than if benefits are received. The difference disappears at the higher poverty line, but at that level, the poverty gap is about 30% without benefits against about 20% with benefits. Third, if the household head is employed, poverty incidence rises with the number of unemployed household members, but the effect of unemployment benefits on poverty is less pronounced.

Table 5. Unemployment by socio-economic group.

	Households with no unemployed member	Households with 1 unemployed member	Households with 2 or more unemployed members	Total
Permanent employee	83.5%	14.9%	1.6%	100.0%
Temporary employee	83.8%	15.4%	0.8%	100.0%
Self employed	80.6%	19.2%	0.2%	100.0%
Sole proprietor	81.9%	18.1%	0.0%	100.0%
Unemployed	0.0%	70.4%	29.6%	100.0%
Pensioner	94.1%	4.9%	1.0%	100.0%
Child care receiver	63.4%	29.7%	6.9%	100.0%
Other	84.8%	14.1%	1.1%	100.0%
Country	83.2%	14.2%	2.6%	100.0%
Percent receiving unemployment benefits	3.7%	76.2%	88.5%	

While the relationship between unemployment and poverty needs to be investigated more thoroughly, taking other factors (especially age and education) into account, at least two policy considerations can be extracted. First, the end of unemployment benefits brings about considerable hardship in households where the head is unemployed, and many do not seem to be picked up by other parts of the social safety net, especially social assistance. This group is quite small (about 2.5% of households where someone is unemployed), but there is no other category of households, in any classification, where the incidence of absolute poverty was found to be so

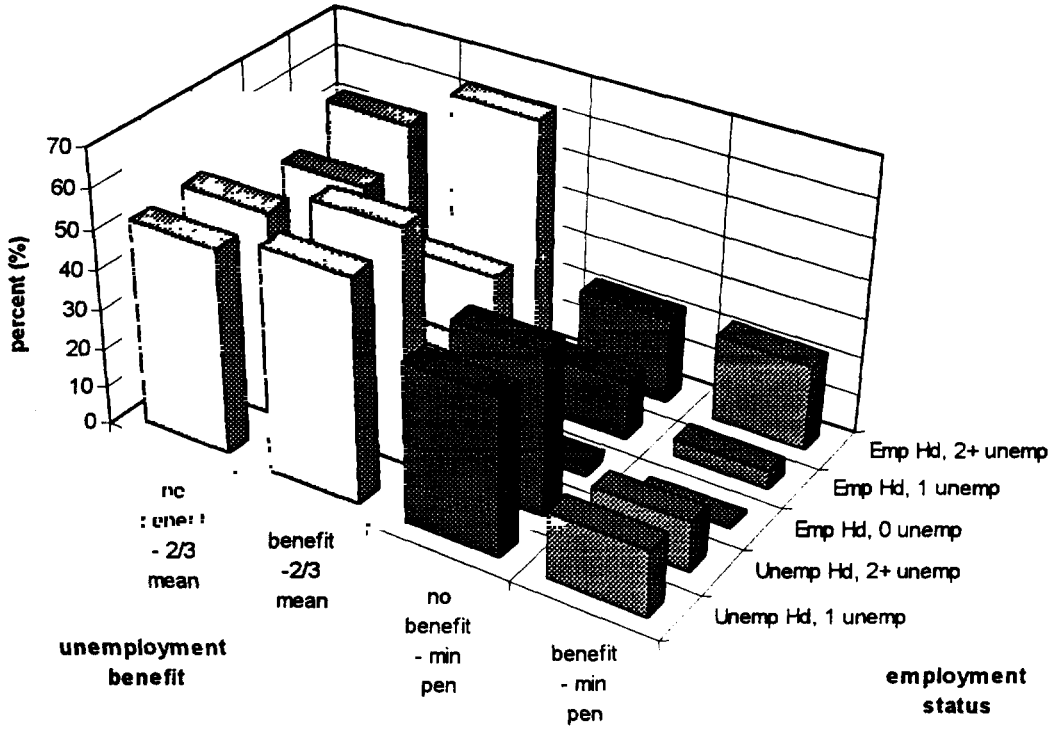
high. Second, unemployment benefits make a distinct contribution to reducing poverty, and do so more strongly among the very poor, which indicates that they are well targeted (we return to this later, in section 4).

Table 6. Poverty incidence and gap by unemployment characteristics.

	Below minimum pension (6,400 HUF/mo)		Below 2/3 of mean expenditure (10,129 HUF/mo)	
	Headcount	Poverty gap	Headcount	Poverty gap
Unemployed head, 1 unemployed member, benefits	16.6%	10.8%	56.8%	20.0%
Unemployed head, 1 unemployed member, no benefits	40.3%	14.2%	52.1%	31.3%
Unemployed head, 2+ unemployed members, benefits	12.4%	17.7%	59.7%	17.7%
Unemployed head, 2+ unemployed members, no benefits	41.4%	9.5%	52.7%	29.4%
Employed head, 0 unemployed members,benefits	0.5%	22.2%	20.3%	12.8%
Employed head, 0 unemployed members, no benefits	2.7%	11.1%	20.6%	15.1%
Employed head, 1 unemployed member, benefits	4.4%	10.4%	30.5%	14.7%
Employed head, 1 unemployed member, no benefits	14.8%	10.3%	43.2%	20.1%
Employed head, 2+ unemployed members, benefits	22.1%	14.4%	62.6%	20.9%
Employed head, 2+ unemployed members, no benefits	22.2%	15.3%	51.5%	23.3%
All	4.5%	11.7%	25.3%	16.2%

Note: Headcount of poverty is the percentage of people below the poverty line; poverty gap is the poor's average shortfall of household expenditure per equivalent adult as a percentage of the poverty line.

Figure 3A: Poverty Incidence (Headcount) by Unemployment Characteristics
- Below Minimum Pension and 2/3 of Mean Expenditure -



Poverty and Region. We now turn to the regional variation in poverty incidence, which is much less pronounced than that across socio-economic groups (Table 7). Budapest has the lowest poverty incidence, while the predominantly rural North and South Plains have the highest poverty incidence. This is consistent of course with the earlier finding that poverty is higher in villages than in cities. This, in turn, is related to the fact that unemployment is higher in villages than in cities. All other regions have poverty ratios which are very similar, for both poverty lines, suggesting that region is not a very important dimension for poverty alleviation policy in Hungary. The poverty gap shows the same pattern as the headcount, with one exception: Pest County has the highest poverty gap, even though its poverty incidence is slightly below average. It appears that this area, which surrounds the capital city, has a few pockets of relatively deep poverty. This issue may need to be investigated further.

Figure 3B: Poverty Gap by Unemployment Characteristics
- Below Minimum Pension and 2/3 of Mean Expenditure -

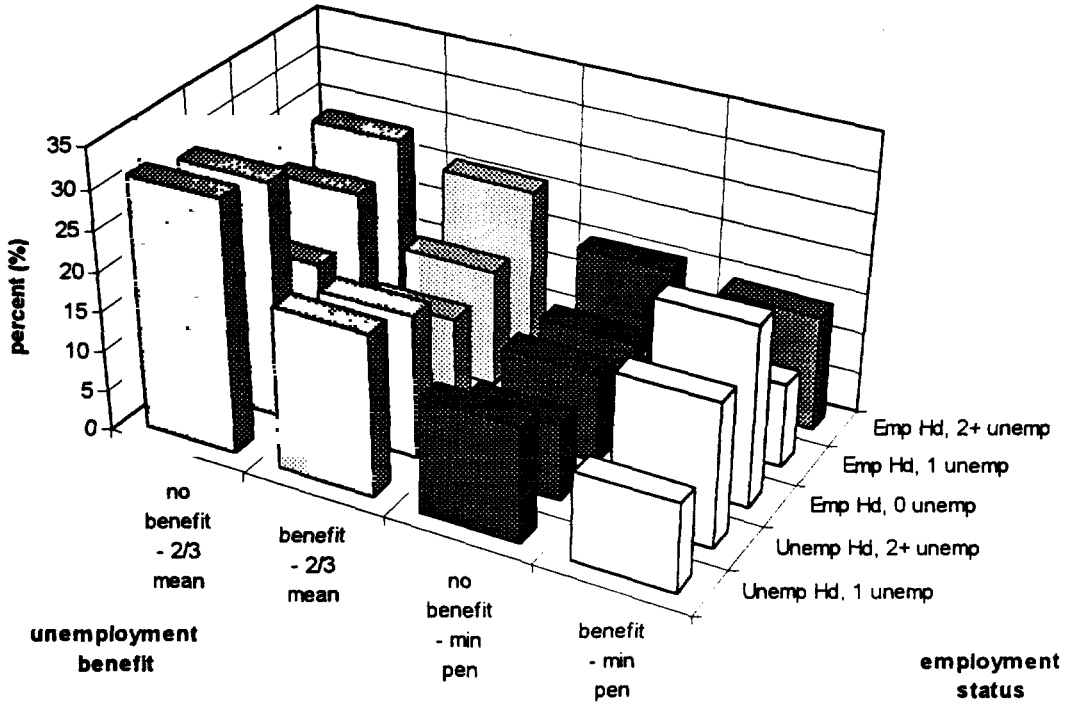


Table 7. Poverty incidence and poverty gap by region.

	Below minimum pension (6,400 HUF/mo)		Below 2/3 of mean expenditure (10,129 HUF/mo)		Share of each region in total population
	Headcount	Poverty gap	Headcount	Poverty gap	
Budapest	2.7%	9.7%	21.1%	14.9%	19.5%
Pest County	4.2%	15.0%	23.7%	17.2%	9.3%
North Hungary	4.1%	13.7%	25.6%	16.0%	12.6%
North Plain	6.0%	11.0%	31.9%	16.9%	14.9%
South Plain	6.0%	11.2%	28.2%	17.1%	13.4%
West Transdanubia	4.2%	12.6%	23.4%	16.4%	9.7%
North Transdanubia	4.8%	10.6%	23.7%	16.2%	10.8%
South Transdanubia	4.2%	11.4%	24.4%	15.1%	9.8%
Country	4.5%	11.7%	25.3%	16.2%	100.0%

Note: Headcount of poverty is the percentage of people below the poverty line; poverty gap is the poor's average shortfall of household expenditure per equivalent adult as a percentage of the poverty line.

Poverty and Household Characteristics. Demographic characteristics are important indicators of poverty in Hungary. Tables 8 and 9 and Figure 4 classify households according to the number of adults and children. Poverty is lowest in nuclear households with 1 or 2 children. Poverty incidence is around average in childless couples or single adults (many of whom are pensioners). Poverty incidence rises steadily with the number of children and is especially high in households with 2 adults and 4 or more children, and in households with 3 or more adults and 3 or more children. Among those households, one in five have a level of living below the minimum pension, and more than 70% fall below 2/3 of mean expenditure. It is noteworthy though that the poverty gap of these households is not higher than average, suggesting that the social safety net is effective in preventing that they become groups of extreme poverty. The highest poverty gap occurs among single adults. Although these are few (6.5% of the population), and poverty incidence among them is not very high, they do contain a pocket of deeper than average poverty, indicating a possible weakness in the safety net.

In terms of targeting, Table 9 and Figure 4 make it clear that the poverty pattern is determined by the number of children in the household, and not household size, per se. Holding the number of children constant, poverty does not always increase with the number of adults (at least until one reaches 4+ adults, where there is a jump in poverty incidence). The correlation between poverty and the number of children is much stronger. The corollary of these observations is that poverty among children in Hungary is somewhat higher than in the population at large (Table 10). Poor children live primarily in villages, and in households where the head has low education and no or a temporary link with the labor market. The correlation between poverty and the presence of children in the household, makes the presence of children an important candidate indicator for the targeting of social transfers. Currently, three transfers (family allowance, child care allowance, child care fee) are based on this criterion.

Table 8. Poverty incidence and poverty gap by type of household and gender of household head.

	Below minimum pension (6,400 HUF/mo)		Below 2/3 of mean expenditure (10,129 HUF/mo)		Share of each category in total population
	Headcount	Poverty gap	Headcount	Poverty gap	
1 Male	4.8%	12.9%	22.6%	21.1%	1.4%
1 Female	5.3%	15.6%	34.7%	19.5%	5.1%
1 Adult with children	9.2%	9.5%	24.9%	19.0%	2.0%
2+ Adults	3.3%	12.4%	22.5%	16.4%	42.6%
2 Adults with 1-2 children	2.8%	12.2%	20.4%	14.4%	26.9%
2 Adults with 3 children	6.4%	7.8%	29.8%	13.7%	3.6%
2 Adults with 4+ children	19.0%	11.1%	71.4%	14.5%	1.3%
3+ Adults with 1-2 children	6.5%	10.6%	29.4%	15.8%	15.5%
3+ Adults with 3+ children	21.4%	11.6%	72.7%	21.2%	1.4%
Male headed household	3.8%	11.6%	23.7%	15.8%	77.0%
Female headed household	6.5%	11.9%	30.8%	17.4%	23.0%
All	4.5%	11.7%	25.3%	16.2%	100.0%

Note: Headcount of poverty is the percentage of people below the poverty line; poverty gap is the poor's average shortfall of household expenditure per equivalent adult as a percentage of the poverty line.

There is a distinct gender dimension to poverty in Hungary (Table 8). Poverty is higher among female headed households. In the case of one person households, the difference is not so large at the minimum pension level, but it is quite pronounced at 2/3 of the mean. Poverty is also above average among single adults with children, of whom the majority are women. Such aggregate figures hide of course many different situations faced by women with respect to access to the labor market or extent of coverage by the social safety net. These would have to be explored further before it could be argued that gender by itself is a valid targeting indicator.

Table 9. Poverty incidence according to the number of adults and number of children in household.

	Below minimum pension (6,400 HUF/mo)				
	Children				
	0	1	2	3	4+
1 Male adult	4.8%	5.6%	0.0%	—	—
1 Female adult	5.3%	13.3%	0.0%	29.9%	0.0%
2 Adults	2.6%	3.3%	2.5%	6.4%	19.0%
3 Adults	3.6%	3.5%	6.8%	0.0%	29.5%
4+ Adults	4.3%	8.0%	14.7%	65.5%	24.1%
	Below 2/3 of mean expenditure (10,129 HUF/mo)				
	Children				
	0	1	2	3	4+
1 Male adult	22.6%	30.4%	0.0%	—	—
1 Female adult	34.7%	25.2%	16.7%	30.0%	100.0%
2 Adults	24.2%	19.8%	20.7%	29.8%	71.4%
3 Adults	20.9%	19.9%	34.4%	60.5%	100.0%
4+ Adults	21.4%	36.2%	44.7%	71.4%	90.3%

Figure 4A: Poverty Incidence (Headcount) according to the Number of Adults and Number of Children in Household - Below Minimum Pension -

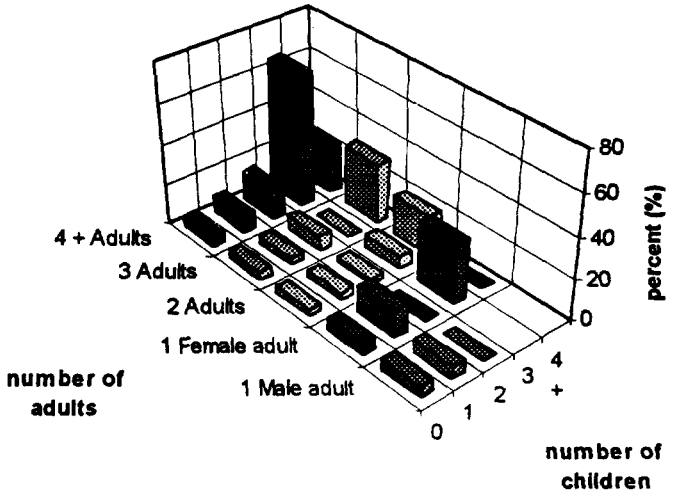


Figure 4B: Poverty Incidence (Headcount) according to the Number of Adults and Number of Children in Household - Below 2/3 of Mean Expenditure -

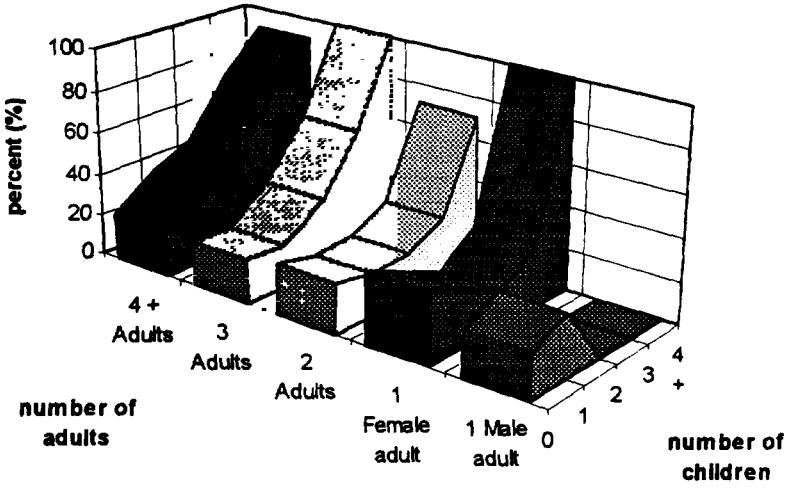


Table 10. Percent of children living in poor households.

	Below minimum pension (6,400 HUF/mo)	Below 2/3 of mean expenditure (10,129 HUF/mo)
Budapest	3.8%	26.5%
Towns	4.7%	24.5%
Villages	6.9%	30.9%
Permanent employee	2.9%	21.6%
Temporary employee	18.6%	53.8%
Self employed	2.3%	22.8%
Sole proprietor	0.0%	6.0%
Unemployed	19.6%	63.7%
Pensioner	12.6%	51.8%
Child care receiver	26.6%	56.2%
Other	9.4%	31.7%
Male headed households	4.5%	26.0%
Female headed households	9.8%	33.6%
Education of head		
Less than primary	29.6%	68.4%
Primary	11.7%	51.5%
Vocational	4.1%	25.1%
Special post-primary	7.1%	31.8%
Secondary grammar	0.7%	18.3%
Other secondary	1.0%	14.3%
High school	0.9%	4.9%
University	0.0%	21.1%
All	5.4%	27.4%

We next look at the link between education and poverty. There is a strong inverse relation between poverty and the education of the head of household (Table 11). Secondary or higher education virtually guarantees a level of living above the minimum pension, and college and university puts all but 5% of people above 2/3 of mean expenditure. Households where the head

has vocational school have poverty levels slightly below average. This leaves three target groups with low levels of education, where poverty is significantly worse than average: the largest group is those with only primary education or less—almost 1/3 of the population lives in households where the head is in that situation. A much smaller group (less than 1% of the population) has "special post-primary" education, and they too have higher than average poverty.

Table 11. Poverty incidence and poverty gap according to the education level of the head of household.

	Below minimum pension (6,400 HUF/mo)		Below 2/3 of mean expenditure (10,129 HUF/mo)		Share of each category in total population
	Headcount	Poverty gap	Headcount	Poverty gap	
Less than primary	13.1%	14.5%	51.0%	20.7%	9.9%
Primary	7.3%	11.1%	37.3%	16.8%	26.6%
Vocational	2.9%	9.4%	22.7%	13.7%	28.6%
Special post-primary	9.8%	9.6%	30.4%	15.7%	0.8%
Secondary grammar	1.3%	15.6%	15.1%	14.4%	7.0%
Other secondary	1.2%	7.5%	12.3%	13.5%	15.3%
High school	0.3%	6.5%	5.5%	8.0%	6.5%
University	0.0%	0.0%	5.1%	7.7%	5.2%
All	4.5%	11.7%	25.3%	16.2%	100.0%

Note: Headcount of poverty is the percentage of people below the poverty line; poverty gap is the poor's average shortfall of household expenditure per equivalent adult as a percentage of the poverty line.

We close this overview of the poverty profile in Hungary by looking at the relation between age of the head of household and poverty incidence. Frequently, living standards display an inverse U-shaped life cycle pattern, whereby the youngest and oldest have the lowest level of living and the highest poverty. This is also the case in Hungary (Table 12), but the age-effect is stronger among the young than among the old. This reflects on the one hand the pension system, which keeps most pensioners out of poverty, while on the other hand much unemployment is concentrated among the young.

Table 12. Poverty incidence and poverty gap according to age of head of household.

	Below minimum pension (6,400 HUF/mo)		Below 2/3 of mean expenditure (10,129 HUF/mo)		Share of each category in total population
	Headcount	Poverty gap	Headcount	Poverty gap	
< 25	11.2%	10.6%	41.7%	17.4%	4.0%
25-34	4.2%	8.7%	27.4%	14.1%	21.7%
35-49	3.9%	12.4%	21.0%	15.9%	42.6%
50-59	3.9%	12.5%	18.5%	17.4%	14.4%
>= 60	5.2%	13.4%	35.2%	17.9%	17.3%
All	4.5%	11.7%	25.3%	16.2%	100.0%

Note: Headcount of poverty is the percentage of people below the poverty line; poverty gap is the poor's average shortfall of household expenditure per equivalent adult as a percentage of the poverty line.

Poverty Profile Based on Income Data. We explained in Section II the rationale for basing poverty analysis on household expenditure data. Nevertheless, as a sensitivity analysis, it is useful to recalculate the poverty profile tables using net household income as criterion. When using a relative poverty line (2/3 of mean household income per equivalent adult), the differences with the expenditure based poverty profile where minimal—very few rank reversals occurred among categories of households (i.e. whereby one category appeared more poor than the other with expenditure as criterion but less poor with income as criterion, or vice versa). In the case of the minimum pension poverty line, rank reversals were more frequent. In particular, people living in towns, single female adults, households where the head has less than primary education, child care receivers, and the aged have lower poverty incidence with income than with expenditure as criterion. It is normal that sensitivity to the criterion is higher for a lower poverty line, especially a line such as the minimum pension which, in the case of income, only cuts off 2.5% of the population.

Multivariate Poverty Analysis. The analysis so far has indicated that there is a bivariate relation between poverty and several socio-economic and demographic characteristics of

households in Hungary. From the perspective of allocating resources for poverty alleviation, it is essential to know what the relative importance is of each of the determinants of poverty. Also, several determinants have direct and indirect effects. For example, a low education level results in low income and a higher probability to be poor, but it also increases the chance to become unemployed which in turn adds to the probability to be poor. To take these considerations into account, we undertook a basic multivariate analysis, combining all poverty correlates discussed so far (Table 13). We estimated two models. The first one considers the full distribution of household expenditure and shows the contribution to living standards made by each household characteristic (OLS estimation). The second model shows how each household characteristic affects the probability to be poor (probit estimation).

The results show that the observed differences in living standards and poverty between Budapest, towns and villages are due entirely to differences in the socio-economic and demographic make-up across these locations. There is no location dimension per se to poverty in Hungary. All other factors we considered earlier remain significant determinants of living standards and poverty in Hungary. However, it must be noted that the estimated expenditure model only explains 20% of the variation of living standards across households. There are obviously many other factors which determine living standards in Hungary.

Education makes the largest contribution to raising living standards. Households where the head has a college or university diploma have 66,721 HUF and 86,734 HUF, respectively, higher household expenditure per equivalent adult than households where the head only has vocational education (holding all other household characteristics constant). Socio-economic category is the next most important determinant. It is noteworthy that, all other things equal, pensioner status for the head of household lowers living standards by more than unemployment status. However, if additional members are unemployed and/or if no unemployment benefits are received, this is no longer true, and then such a household has in fact the lowest living standard of any group. As expected, the composition of the household also matters, but to a lesser degree than other variables. The coefficients of the age variables indicate that the living standards life cycle peaks at age 48.

Table 13. Multivariate determinants of poverty.

	Annual Household expenditure per equivalent adult	Poverty Status (percentage points change in the probability to be poor)	
		Below minimum pension (6,400 HUF/mo)	Below 2/3 of mean expenditure (10,129 HUF/mo)
Intercept	172,913	—	—
Towns	n.s.	0.08	-0.52
Villages	n.s.	0.46	-1.48
Temporary employee	-49,611	8.64*	28.02*
Self-employed/sole proprietor	35,784	-0.25	2.28
Unemployed	-31,947	4.99*	18.99*
Pensioner	-36,259	0.45	12.27*
Other socio-economic group	-16,269	4.08*	11.36*
Number of unemployed in household	-15,114	0.64*	8.30*
No unemployment benefits	-12,257	3.97*	8.41*
Number of adults in household	-14,059	0.50*	4.28*
Number of children in household	-12,648	0.48*	5.07*
Age of head	2,948	0.01	-0.06*
Age of head squared	-30.4		
Female headed household	-15,750	0.79*	5.89*
Less than primary school	-24,346	3.97*	18.59*
Primary or special post primary school	-17,251	1.91*	11.48*
Secondary school	31,780	-0.33	-8.09*
College	66,721	-1.17*	-14.14*
University	86,734	-2.24	-12.37*
R^2	0.20	—	—

Note: The first column contains OLS coefficients. All are significantly different from zero at the 90% confidence level, except when marked "n.s." (not significant). The second and third columns show percentage point changes in the probability to be poor for a one-unit change in an explanatory variable (derived from probit estimates); those significantly different from zero at the 90% confidence level are marked with asterisk (*). The reference category is a household in Budapest, with a male head who is a permanent employee with secondary vocational education.

The two poverty status models confirm that education and employment status are the key determinants of poverty. Temporary employees and those with less than primary education are clearly at greater risk of being poor than are other types of households. Households where the head is unemployed face a 5% greater probability of being poor (below the minimum pension)—and this almost doubles if they receive no unemployment benefits. All other things being equal, pensioners are not more likely than other groups to have a living standard below the minimum pension, but they are 12% more likely to fall below 2/3 of the mean.

The models also confirm that larger households are more likely to be poor, but they show that after controlling for other socioeconomic characteristics, there is little difference between the effect of additional children and that of additional adults in the household. Female-headed household are more likely to be poor, even if they have otherwise the same characteristics as male-headed households.

Finally, the results show that the probability to be poor is determined entirely be the economic and demographic characteristics of the household and is not additionally affected by the type of locality where one lives (Budapest, town or village). The fact that poverty is higher in towns and villages is due to the fact that more unemployed and low-educated people live there, and that demographic characteristics associated with poverty are more prevalent there.

Dynamics of Poverty. The final task of this section is to review the dynamics of poverty, based on the Household Panel Survey. TARKI staff have constructed transition matrices showing the location of each household in income deciles in 1993 and 1994 (see Andorka, Speder and Toth, 1995). They found that only 31% of households remained in the same decile between 1993 and 1994, while 18% went down two or more deciles and 19% went up two or more deciles. Most of the mobility occurred in the middle of the distribution. Both the top and bottom were much more stable. In the bottom three deciles, where most of the poor are located, 40% of households stayed in the same decile. Among the poorest decile, 57% stayed.

It would be very useful to undertake this analysis over the three-year period covered by the panel data, and to focus specifically on the characteristics of the long-term poor. It is indeed a key policy question whether poverty is a temporary or permanent status for most poor, and which people remain in permanent poverty. The policy measures required to address the two types of poverty are different. Temporary poor as best helped by cash transfers which help to "bridge" their period of poverty. Long-term poor may face fundamental problems of endowments (for example, education) which may need to be addressed directly. Re-training programs fall under this heading. However, so do disability and old-age pensions, and the extent to which recipients of these pensions are found among the long-term poor is a good measure of the adequacy of these programs. While the HPS data allow to answer those questions over the period 1992-94, such analysis has not been undertaken yet. It would seem to be a priority to determine the profile of the long-term poor and to contrast it with the temporary poor.

Summary. We can now summarize the poverty profile in Hungary as follows. Poverty in Hungary has strong socio-economic and demographic dimensions. Poverty rates are low among those with strong ties to the labor market and among the well educated. Poverty is high among the unemployed and those with temporary jobs, among workers with low education, among households headed by women, and among households with many children. In many households those categories overlap, aggravating the situation. The differences in poverty between Budapest and the rest of the country can be explained entirely by the differences in the socio-economic and demographic composition of the population.

Among the non-poor, a new socio-economic group is emerging—the sole proprietors—who have successfully taken advantage of the private sector opportunities since transition and who are enjoying the highest level of living and the lowest poverty. At the other extreme are the unemployed, especially households where the head is unemployed, and those who must rely on child care benefits as main source of income. They too are a rapidly emerging group, but with high poverty rates, and they are likely to become a growing concern in targeting the social safety net.

The poverty gap is not very large in Hungary, and reflects a very dense distribution of living standard between mean household expenditure and one half the mean. It also points at a significant degree of success of the social safety net in preventing pockets of deep poverty (the sole exception are the unemployed, particularly if they have ceased to receive unemployment benefits.) However, there remains scope for improved targeting of the different components of the social safety net.

IV. The Beneficiaries of the Social Safety Net

For this study we have distinguished six components of the social safety net: pensions, unemployment benefits, family allowance, child care allowance, social assistance and child care fee (see section 1). Each of those has a set of specific objectives and attempts to reach different households. It is not surprising therefore that the percentage of households receiving a given transfer varies widely across different categories of households (Table 14).

All pensioner households of course receive **pensions**, but so do about one fourth of all other socio-economic groups. The receipt of pensions in non-pensioner households arises because of the possibility of retirement by one household member while the head continues to work. Recipients of pensions are concentrated in villages and in one-person households. Among the latter, 88% of single female adults are pensioners. We noted earlier that poverty among them is higher than average and this is explained by the amount of pension they receive: this amount (126,620 HUF/year) is 30% lower than the average, and 14% less than the average pension received by single male adults (Table 15).

The second most commonly received social transfer, by 44% of households, is the **family allowance**. The family allowance is paid for all children, starting at the 13th week of pregnancy until the child's 16th birthday (20th birthday if the child is in full-time education). This includes the maternity allowance which prior to 1993 was paid out separately. Families with per capita income below twice the minimum pension also receive a supplementary allowance. The coverage of households with children is virtually perfect, reaching 99% or 100% in all but one category of

households. That category is one adult with children, where a mere 4% of households do not receive the allowance.

Table 14. Recipients of social transfers.

	Percent of households receiving						
	Pension	Unemployment benefit	Family allowance	Child care allowance	Social assistance	Child care fee	Any social transfer
Below min. pension	59.9	27.0	48.4	11.0	39.0	3.9	96.9
Btwn min. pension and 2/3 of mean hhold exp.	64.5	21.3	39.6	7.5	27.6	3.9	96.2
Btwn 2/3 of mean hhold exp and subsistence min.	57.0	16.0	43.0	7.7	23.8	4.8	94.6
Above subsistence min.	41.4	12.7	47.3	6.3	18.7	4.9	85.2
Budapest	51.2	8.1	38.0	6.6	16.0	1.9	86.7
Towns	48.7	15.7	47.5	6.6	22.5	5.4	90.8
Villages	56.8	21.4	44.4	8.4	27.9	5.4	94.1
1 Male adult	53.1	10.0	—	—	11.4	—	65.7
1 Female adult	88.2	1.3	—	—	20.0	—	90.4
1 Adult with children	13.5	11.9	96.4	11.6	44.7	3.4	98.4
2+ Adults	67.8	15.9	19.4	0.2	17.5	0.4	87.1
2 Adults with 1-2 children	8.8	22.7	98.9	22.0	27.5	14.4	99.9
2 Adults with 3 children	8.7	19.3	100.0	39.3	52.4	24.6	100.0
2 Adults with 4+ children	7.5	31.5	100.0	46.7	68.1	21.1	100.0
3+ Adults with 1-2 children	39.4	26.9	99.4	11.0	33.7	7.1	99.8
3+ Adults with 3+ children	52.9	39.4	100.0	35.6	74.0	15.1	100.0
Permanent employee	27.3	16.8	64.0	9.6	22.8	6.3	85.5
Temporary employee	27.5	24.4	61.4	3.2	50.6	5.9	95.9
Self employed	24.2	15.2	70.3	12.2	17.4	5.2	84.5
Sole proprietor	22.8	8.3	65.4	7.9	25.9	5.9	81.9
Unemployed	26.4	90.3	66.5	18.2	38.3	12.0	97.7
Pensioner	99.9	5.0	5.7	0.6	20.9	0.2	100.0
Child care receiver	23.7	28.3	100.0	63.0	47.6	40.1	100.0
Other	45.0	32.6	41.5	8.5	28.5	6.3	86.8
All	52.2	16.2	44.3	7.2	23.1	4.6	91.1

Table 15. Average amount of social transfers (HUF/year) received by recipient households.

	Pension	Unemployment benefit	Family allowance	Child care allowance	Social assistance	Child care fee	All social transfers
Below min. pension	135,857	82,483	68,014	48,844	26,539	81,772	160,551
Btwn min. pension and 2/3 of mean hhold exp.	162,054	78,504	68,454	42,647	19,572	62,013	165,779
Btwn 2/3 of mean hhold exp. and subsistence min.	179,959	80,638	68,129	40,890	17,377	74,614	164,504
Above subsistence min.	200,310	79,427	65,361	42,347	16,343	105,151	158,353
Budapest	201,857	100,743	61,961	38,162	26,663	199,678	167,932
Towns	183,024	76,346	66,791	41,616	18,983	73,128	158,311
Villages	165,529	77,977	69,644	44,746	14,695	77,417	163,420
1 Male adult	146,802	7,472	—	—	13,215	—	132,444
1 Female adult	126,620	88,884	—	—	8,511	—	126,672
1 Adult with children	95,477	68,193	66,515	40,415	23,587	59,954	104,093
2+ Adults	212,589	79,557	47,181	39,468	17,658	252,459	195,428
2 Adults with 1-2 children	123,884	83,546	59,052	40,974	14,646	79,552	113,285
2 Adults with 3 children	91,877	77,466	133,604	45,567	24,663	90,041	209,485
2 Adults with 4+ children	48,727	60,614	198,800	46,543	43,921	70,037	287,935
3+ Adults with 1-2 children	148,954	76,009	76,185	46,398	23,340	74,550	173,541
3+ Adults with 3+ children	141,641	83,475	155,658	36,509	59,963	86,950	333,952
Permanent employee	151,464	73,128	65,725	42,989	17,300	89,818	128,019
Temporary employee	141,369	55,363	65,238	30,525	30,213	50,203	116,467
Self employed	147,036	67,379	64,731	34,190	17,618	107,136	123,224
Sole proprietor	87,712	61,447	78,301	68,426	36,777	51,438	115,196
Unemployed	114,801	95,532	76,659	43,169	30,602	77,566	201,139
Pensioner	197,412	80,453	69,738	38,450	14,255	90,954	208,597
Child care receiver	123,848	98,997	84,437	38,680	16,355	59,666	197,858
Other	112,728	93,578	65,379	48,421	45,654	65,656	149,309
All	179,928	79,775	66,962	42,289	18,207	86,112	162,238

The child care allowance is paid to mothers on part-time or full-time leave from work, until the third birthday of the child (10th birthday if the child is disabled). This allowance is

received by 7% of households. It is concentrated among the permanent employees, the self-employed, and the unemployed (and, by definition, in the "child care receiver" group).

The **child care fee** is also paid to mothers who stay at home, but there is an eligibility condition that they must have at least one full year of social security contributions. Almost 5% of households receive this fee, but here the concentration is more even across the socio-economic groups. Only households with an unemployed head receive it in higher proportion (and, again of course, the "child care receiver" group).

Unemployment benefits are received by 16.2% of households, and by 90% of those where the head is unemployed. Almost 30% of households whose main source of income is child care benefits also receive unemployment benefits. There is also a concentration of beneficiaries in households with more than two adults and/or more than 3 children. This suggests an unfortunate coincidence of large household size and broken links with the labor market—both strong determinants of poverty.[8] Unemployment benefits are paid out at a much higher rate in villages (21%) than in towns (16%) or in Budapest (8%). However, the average amount of the benefit by recipient household is higher in Budapest than elsewhere.

Lastly, **social assistance** is received by 23% of households although in terms of money it is the least important social transfer (18,207 HUF/year per recipient household). This is cause for concern since social assistance is the only component of the social safety net in Hungary which is explicitly geared towards alleviating poverty. (This does not mean of course that other transfers, such as unemployment benefits, do not in fact alleviate poverty even though it is not their stated objective—see further below.) The distribution of social assistance over different types of households is quite uneven. While generally it is higher in groups with high poverty incidence, there are exceptions.

[8] One can surmise that the existence of large households in some cases is itself the result of unemployment, whereby unemployed adults join households to take advantage of economies of scale in consumption.

In view of the poverty alleviation objective of social assistance, we have undertaken a more detailed analysis of the recipients, which revealed some distinct concentrations:

- geographically: 85% of recipients live in towns or villages; the regional concentration is strongest in the North;

- household composition: 18% of recipients are single adult households (with or without children), even though such households make up only 8% of the population; among households with two or more adults, beneficiaries are not concentrated among those with many children, even though such households have well above average poverty rates; however, the amount of assistance received does increase with household size;

- gender of head of household: one third of social assistance beneficiaries are female headed households (who are 23% of all households);

- education: social assistance recipients are found among all education groups, roughly in proportion to their population share, except that households where the head has less than primary education are overrepresented and those where the head has college or university education are underrepresented;

- socio-economic status: more than half of social assistance recipients are households where the head is a permanent employee (such households are two thirds of all households, but the poverty incidence among them is quite low); pensioner and temporary employee households are the most overrepresented among social assistance recipients; most notably, 26% of sole proprietor households receive social assistance, even though this is the richest group with the lowest poverty incidence (they receive an average 36,777 HUF/year—twice the average—which attests to the difficulty of means testing for this category);

- unemployment: 22% of social assistance beneficiaries are households where there is an unemployed person (who are 17% of all households).

How Well Targeted To The Poor Are Social Transfers? About 60% of households below the minimum pension receive a **pension**. The figure rises to 65% for households between the minimum pension and the relative poverty line, and declines thereafter. The average pension received by poor households is 135,857 HUF/year, which is well above the minimum pension, but the amount contributes of course to the expenditure of the entire household and is not sufficient to raise every recipient household above the poverty line on an equivalent adult basis. In contrast,

the average pension received by a household above the subsistence minimum is 200,310 HUF/year. Thus a higher percentage of poor households receive pensions, but the amount they receive is lower (which of course partly explains their poverty). The concentration coefficient of pensions is -0.06, which indicates that pensions in Hungary contribute to reducing inequality in the distribution of living standards in both an absolute and relative way.

Unemployment benefits are strongly targeted to the poor: 27% of the poorest households receive them, against only 13% of non-poor households. The average annual benefit is 80,000 HUF and does not vary much by expenditure level of the recipient. This means that unemployment benefits make a strong contribution to equalizing the distribution of living standards (as reflected by a concentration coefficient of -0.11).

The **family allowance** is a universal benefit, and neither its incidence of receipt nor the amount received varies with the expenditure level of the recipient household. Its distribution is thus flat (concentration coefficient = +0.04) which means that it reduces inequality in a relative way only.

There is a marked difference in the incidence patterns of the **child care allowance** and the **child care fee**. Both are paid to mothers who stay away from work, but the allowance is a fixed amount, while the fee is a proportion (65-75%) of the previous wage and it requires at least one full year of previous work and social security contributions. As a result, the child care allowance is a progressive social transfer, while the child care fee is strongly regressive. The allowance is received by 11% of households below the minimum pension, against 7% for other households, and the average amount received by poor households is higher (because they have more children). The concentration coefficient is -0.05. In contrast, the child care fee is received more by better-off households and the average amount they receive is higher. The concentration coefficient is +0.22. There is also an unusual regional pattern of incidence to the child care fee. Fewer than 2% of households in Budapest receive it against 5.4% of households elsewhere in the country, but the amount received in Budapest is almost three times as high as in other towns.

Lastly, **social assistance** is well targeted towards the poor: 39% of households below the minimum pension benefit from social assistance, against 19% of household above the subsistence minimum. In addition, the amounts received by the poorest households are larger. The amounts are especially high for households with 3 or more children. In all, social assistance reduces the inequality of the distribution of living standards both in absolute and relative terms—it has the highest negative concentration coefficient of any social transfer (-0.16). However, as we pointed out earlier, there are a few anomalies, such as the high amounts received by sole proprietor households.

Table 16. Unemployment and social assistance.

	Percent of households receiving social assistance	Percent of poor households receiving social assistance	
		Below minimum pension (6,400 HUF/mo)	Below 2/3 of mean expenditure (10,129 HUF/mo)
Unemployed head with unemployment benefits	37.0	43.4	45.1
Unemployed head without unemployment benefits	50.9	63.2	63.9
Other unemployed household member with unemployment benefits	26.3	41.1	35.8
Other unemployed household member without unemployment benefits	34.2	49.1	40.6
All	31.0	46.0	40.6

The relation between unemployment and social assistance is of particular importance, both because of the concentration of poverty in households where there is unemployment and because social assistance is meant to fill the gap when unemployment benefits run out. Roughly one in three households where there is an unemployed person receives social assistance, and the ratio is higher when the household no longer receives benefits. As Table 16 shows, the program is more successful when the unemployed person is the head of household. In the latter situation, when the household is poor and unemployment benefits have run out, two out of three cases receive social

assistance. However, when the unemployed person is another household member, fewer than one in two poor households receive social assistance.

The social assistance program thus reaches 40-50% of the unemployed poor, but this targeting needs to be improved if social assistance aims to serve as safety net of the last resort. The poverty figures suggest that the end of unemployment benefits still causes a significant rise in poverty even after receipt of social assistance. In addition to better targeting, amounts paid out may also need to be increased since social assistance received by households where unemployment benefits have run out is often less than half the amount of the unemployment benefit. It is argued below that such increases are feasible within a fixed budget, by eliminating beneficiaries in the upper half of the distribution.

Looking at the social safety net in its entirety, 91% of Hungarian households receive one or more transfers, for an average amount of 162,238 HUF/year. Among households below either the minimum pension or the relative poverty line, 96% receive a social transfer, and the coverage of the system as a whole is 100% for any household with children (when there is only one adult, it is 98%).

This is a remarkable achievement, and such pervasive coverage of the social safety net is exceptional even among formerly socialist economies. However, as we pointed out in the introduction, and as is discussed in detail in World Bank (1995), such system is extremely expensive and in Hungary's current economic situation, it is no longer sustainable. The key issue is hence how to improve the targeting of the system towards the truly needy, by reallocating resources and by changing eligibility rules. These questions are addressed in the remainder of this report.

Table 17. Average amount of social transfers (HUF/year) per household (recipient and non-recipient).

	Pension	Unemployment benefit	Family allowance	Child care allowance	Social assistance	Child care fee	All social transfers
Below min. pension	81,365	22,286	32,949	5,357	10,339	3,221	155,517
Btwn min. pension and 2/3 of mean hhold exp.	104,536	16,742	27,137	3,205	5,411	2,416	159,448
Btwn 2/3 of mean hhold exp. and subsistence min.	102,500	12,905	29,318	3,168	4,141	3,589	155,620
Above subsistence min.	82,958	10,084	30,910	2,688	3,061	5,204	134,905
Budapest	103,267	8,175	23,535	2,504	4,275	3,782	145,538
Towns	89,057	12,016	31,697	2,738	4,274	3,915	143,697
Villages	94,101	16,696	30,946	3,756	4,106	4,207	153,812
1 Male adult	77,929	7,501	—	—	1,512	—	87,039
1 Female adult	111,645	1,120	—	—	1,700	—	114,466
1 Adult with children	12,879	8,107	64,111	4,682	10,544	2,059	102,362
2+ Adults	144,232	12,617	9,152	74	3,089	969	170,135
2 Adults with 1-2 children	10,896	18,960	58,403	9,006	4,031	11,444	112,740
2 Adults with 3 children	7,985	14,919	133,604	17,894	12,934	22,149	209,485
2 Adults with 4+ children	3,649	19,068	198,800	21,733	29,914	14,772	287,935
3+ Adults with 1-2 children	58,687	20,478	75,757	5,106	7,864	5,274	173,166
3+ Adults with 3+ children	74,969	32,893	155,658	12,995	44,345	13,091	333,952
Permanent employee	41,334	12,266	42,096	4,114	3,944	5,652	109,406
Temporary employee	38,922	13,512	40,069	981	15,284	2,971	111,740
Self employed	35,520	10,238	45,511	4,170	3,068	5,571	104,078
Sole proprietor	19,999	5,072	51,223	5,430	9,535	3,031	94,291
Unemployed	30,352	86,268	50,965	7,870	11,734	9,324	196,514
Pensioner	197,197	4,009	3,985	219	2,973	175	208,558
Child care receiver	29,334	27,980	84,437	24,364	7,787	23,956	197,858
Other	50,707	30,542	27,132	4,118	13,026	4,056	129,581
All	93,986	12,926	29,662	3,065	4,212	3,995	147,847

Table 18. Social transfers as a percentage of household expenditure and disposable income (all households).

	Percent of expenditure								Percent of disposable income
	Pension	Unemployment benefit	Family allowance	Child care allowance	Social assistance	Child care fee	All minus pensions	All social transfers	All social transfers
Below min. pension	76.6	13.3	16.2	3.0	6.7	1.6	40.8	117.4	66.2
Btwn min. pension and 2/3 of mean hhold exp.	64.2	6.8	9.1	1.1	2.3	0.8	20.2	84.4	56.3
Between 2/3 of mean hhold exp. and subsistence min.	43.3	3.8	7.2	0.8	1.3	0.9	14.1	57.4	44.2
Above subsistence min.	21.1	2.0	4.9	0.4	0.6	0.7	8.6	29.7	27.5
Budapest	43.2	2.8	5.0	0.6	1.2	0.5	10.1	53.3	36.4
Towns	37.4	3.7	7.5	0.7	1.5	0.8	14.3	51.7	36.4
Villages	40.8	5.3	7.6	1.0	1.5	1.0	16.4	57.2	40.6
1 Male adult	52.4	5.5	—	—	1.3	—	6.9	59.3	47.0
1 Female adult	83.3	0.8	—	—	1.4	—	2.2	85.5	72.3
1 Adult with children	3.2	8.2	22.9	2.4	5.0	0.8	34.3	41.5	34.9
2+ Adults	51.9	4.1	2.3	0.0	1.1	0.1	7.5	59.4	42.1
2 Adults with 1-2 children	3.0	5.7	14.1	2.5	1.1	2.6	26.0	29.0	24.2
2 Adults with 3 children	1.7	4.5	29.9	4.0	3.2	3.9	45.5	47.3	39.4
2 Adults with 4+ children	1.1	4.6	48.1	5.3	7.0	3.5	68.5	69.6	58.9
3+ Adults with 1-2 children	12.1	5.2	15.1	1.1	1.6	1.0	24.1	36.1	30.3
3+ Adults with 3+ children	17.1	7.6	35.9	2.9	11.6	3.2	61.2	78.3	60.0
Permanent employee	10.5	3.2	9.3	1.0	1.0	1.0	15.5	26.1	22.2
Temporary employee	16.7	4.8	14.5	0.2	7.3	0.7	27.6	44.3	37.4
Self employed	8.6	2.4	8.7	1.2	0.7	0.9	13.9	22.6	23.3
Sole proprietor	3.5	1.2	8.1	1.1	1.7	0.7	12.7	16.2	16.7
Unemployed	10.9	33.4	16.3	2.6	4.9	3.2	60.4	71.2	70.1
Pensioner	95.9	1.5	1.3	0.1	1.4	0.0	4.3	100.2	86.8
Child care receiver	5.8	9.0	28.8	10.2	3.3	8.0	59.3	65.1	59.8
Other	22.4	12.2	7.2	0.9	6.7	1.0	28.1	50.5	40.3
All	39.9	4.1	7.0	0.8	1.4	0.8	14.2	54.1	37.9

In order to assess possibilities for reallocation of funds, is useful to know how much the current system contributes to the level of living of different types of households. Tables 14 and 15 showed respectively the incidence of recipients and the amounts received. Tables 17 and 18 combine this information to show respectively the average amount of a given transfer per household, i.e. recipient and non-recipient, and the relative contribution this makes to covering the expenditure of the households in question. ***The social safety net in Hungary represents 54% of the expenditure of an average household***, and provides 38% of its income. This is a very high figure, even for a post-socialist economy (in Poland, for example, the equivalent figure for expenditure is 45%). Pensions are the lion's share (74%) of this, and by themselves contribute 40% to household expenditure. The family allowance contributes 7%, and unemployment benefits 4%. The remaining benefits constitute about 3% of household expenditure.

There are of course large differences in the relative importance of social transfers for different categories of households. For pensioners, they cover 100% of expenditure, for permanent employees about one fourth, and for households where the head is unemployed almost three fourths. As expected, this share also rises with the number of children in the household.

From the perspective of poverty, the key question is whether the social safety net covers more of household expenditure for the poor than the non-poor. This is one way of judging the progressivity of the system. In total, the social safety net is indeed very progressive, representing 117% of the expenditure of the poorest households, and 30% of the expenditure of the non-poor, for a ratio of 3.9:1 (Table 18). The equivalent figures for income are 66% and 27%—a ratio of 2.4:1—so the progressivity remains regardless of whether household expenditure or income is used to measure the living standard of households. The respective concentration coefficients are—0.05 and -0.02, so that the social safety net in Hungary contributes to equalizing both the distributions of household income and expenditure, in both a relative and absolute way. (As we discussed at length in section 2, there are possible reporting problem in the Household Budget Survey data. The fact that for some poor the sum of social transfers exceeds their reported expenditure is an indication of this. This may affect especially the elderly and others who may

have difficulty remembering and/or recording expenditures.) Table 19 shows various indicators of progressivity, by type of social transfer. This shows consistently that social assistance and unemployment benefits are the most pro-poor transfers, while the child care fee is the least pro-poor transfer.

Table 19. Poor-to-non-poor ratios of social transfers.

	Pension	Unemployment benefit	Family allowance	Child care allowance	Social assistance	Child care fee	All social transfers
Recipients of social transfers (Table 14)	1.44	2.13	1.02	1.75	2.09	0.80	1.14
Amount received per recipient household (Table 15)	0.67	1.04	1.04	1.15	1.62	0.78	1.01
Amount per household (Table 17)	0.98	2.21	1.07	1.99	3.38	0.62	1.15
Share of household expenditures (Table 18)	3.63	6.65	3.31	7.50	11.17	2.29	3.95

Note: Ratios are for households below the minimum pension relative to households above the subsistence minimum.

Targeting efficiency. While the results cited so far indicate a reasonable amount of success of the Hungarian transfer system in reaching the poor, they provide no indication of the cost at which this result is achieved. An analysis of the cost effectiveness of the transfer system is outside the scope of this paper, but the pension system is analyzed in detail in World Bank (1995). We show in Tables 20 and 21 partial measures of targeting efficiency, which try to assess how much money is spent in order to help a poor person. The main shortcoming is that we do not have information on administrative costs, which in principle need to be added to the amount of transfers to compare different parts of the system.

Table 20 shows first the total amount of a given transfer divided by the total number of people in the country who were poor before receiving the transfer (ex-ante poor). This is a broad measure of the cost of reaching one eligible poor person, whereby the cost includes leakage, i.e. transfers going to non-poor. For comparison, the second column shows the average amount of a

transfer actually received by the ex-ante poor, i.e., it excludes the cost of leakage from the numerator and the denominator is ex-ante poor recipients only (as opposed to all ex-ante poor).

Table 20. Average transfer per ex-ante poor person (HUF/year).

	Below minimum pension (6,400 HUF/mo)		Below 2/3 of mean expenditure (10,129 HUF/mo)	
	Average transfer paid out per poor person	Average transfer received by poor person	Average transfer paid out per poor person	Average transfer received by poor person
Pension	126,485	101,576	75,515	89,046
Unemployment benefit	56,225	31,674	15,824	25,347
Family allowance	102,768	21,727	30,606	18,787
Child care allowance	20,825	10,483	4,144	10,584
Social assistance	27,186	12,059	5,690	8,123
Child care fee	28,634	22,478	5,463	19,110
All social transfers	132,940	85,646	89,794	71,615

Ideally, under perfect targeting towards the poor, leakage would be zero and both columns would be identical. In practice, the second column should be larger than the first for poverty-oriented programs, indicating that the transfer of funds is more efficient at the level of the ultimate poor beneficiaries than for the potential target group as a whole. As Table 20 shows, no transfer meets this condition when the minimum pension is the poverty line, but the condition is met by all transfers but the family allowance if the higher poverty line is used. All other things being equal, targeting is more likely to succeed when the poverty line is increased.

Table 20 also shows that large differences exist in the "cost" of helping a poor person. Including the cost of leakage, the pension system spends 126,485 HUF per ex-ante poor person (below minimum pension) while the child care allowance system spends 20,825 HUF per poor person. Per poor recipient, the corresponding figures are 101,576 HUF and 10,483 HUF. The wide differences between the two columns reflect that most of Hungary's transfer programs are not explicitly aimed to help the poor, and that hence "leakage" is large (see next section). The

figures also indicate the enormous differences in amounts actually transferred to the poor. For example, the unemployment benefit transfers 31,764 HUF per poor recipient, while social assistance transfers only 12,059 HUF per poor recipient. Clearly, the contribution made by each program to closing the poverty gap will differ widely (see next section).

An alternative way of looking at the cost of reaching the poor is to ask how many poor people are helped per Forint spent on social transfers (where, again, ideally this should include administrative costs)—in other words, what is the poverty impact of different transfer programs after normalizing for the size of the program. Table 21 shows three progressively narrower measures. First is the number of (ex-ante) poor per 1 million HUF spent on a given transfer program (this is simply the inverse of the first column of Table 20), and shows the size of the potential target group. Next, the table shows the number of ex-ante poor reached by the given transfer per 1 million HUF spent, and, finally, the number of poor lifted above the poverty line as a result.

Table 21. Average number of ex-ante poor (below 2/3 of mean expenditure) helped per 1 million HUF of transfers.

	Average number of poor people	Average number of poor recipients	Average number of poor recipients lifted out of poverty
Pension	13.2	9.6	5.8
Unemployment benefit	63.2	25.3	8.7
Family allowance	32.7	23.5	8.9
Child care allowance	241.3	41.2	11.7
Social assistance	175.8	66.7	8.6
Child care fee	183.1	18.1	6.9
All social transfers	11.1	11.0	6.4

Per 1 million HUF spent, the most poor people (66.7) are reached by social assistance, but since the amounts transferred per poor person are much lower (see Table 20), very few (8.6) people are lifted out of poverty. The child care allowance reaches 41 poor people per 1 million HUF spent, while all other programs reach 25 people or less. As is to be expected, the lowest

number of poor people reached or the highest cost per poor person, is observed in the pension system, because it transfers the highest amounts and has no poverty orientation.

Per 1 million HUF spent, the child care allowance program is the most efficient at lifting people out of poverty, even though this program is not specifically oriented towards poverty alleviation. Three programs (unemployment benefits, family allowance and social assistance) are equally efficient at lifting poor people out of poverty—doing so for about 9 people per 1 million HUF spent, i.e. at an average cost of 111,111 HUF (excluding administrative costs). The pervasiveness—and success—of the Hungarian transfer system as a whole is highlighted by the fact that it spends 1 million HUF per 11.1 ex-ante poor people in the country and reaches, in one way or another, 11 of those, and lifts an average of 6.4 of them out of poverty. This success, however, does not come cheaply. Each poor person lifted out of poverty requires 156,250 HUF of transfers on average (again, excluding administrative costs). This has to be compared against the average poverty gap of 19,680 HUF. This means that the average transfer per poor person lifted out of poverty is eight times the poverty gap, i.e., eight times the minimum amount that would be needed under perfect targeting. This is due to targeting failure (leakage) as well as the fact that most transfers do not explicitly attempt to reach only the poor. However, even for social assistance, which does try to reach the poor, the cost per poor person lifted out of poverty is still 116, 279 HUF, or about six times the average poverty gap.

V. Closing the Poverty Gap

The success of a social transfer system is not only measured by the degree to which the benefits are received by the poor (see previous section), but also by the extent to which it contributes to closing the poverty gap. If the gap is completely closed for a household, then the social transfer system has successfully lifted this household out of poverty by raising its income level, and the expenditure level made possible by this, from below to above the poverty benchmark. This is an important element of the external efficiency of the social safety net, but of course not the only element. In other words, the ultimate objective of a social safety net should

not be to lift all people out of poverty in all circumstances. Apart from the fiscal implications of such objective, it would have many undesirable incentive effects.

The extent to which the social safety net reduces the poverty gap depends on the extent to which transfers go to people or households who are poor *prior to* the receipt of the given benefit and on the amount of the benefit in relation to the poverty gap. We now look at each of these two elements in turn. Table 22 shows the extent to which transfers are received by households who were poor before they received the transfer (ex-ante targeting). Of all transfers, pensions go to the largest degree to households who were poor prior to the receipt of the pension. This is not surprising since pensions are large absolute amounts and constitute the major income source for most recipient households. Of the other transfers, unemployment benefits go to ex-ante poor households to the highest degree: 27% of recipient households fell below the minimum pension, and 57% were below 2/3 of mean expenditure, prior to the receipt of unemployment benefits. The pattern is similar for the other transfers: slightly more than 10% of recipients were below minimum pension, another 25% were between the minimum pension and the relative poverty line prior to the receipt of the transfer in question.

Table 22. Ex-ante targeting of social transfers (households).

	Below minimum pension	Between minimum pension and 2/3 of mean household expenditure	Between 2/3 of mean household expenditure and subsistence minimum	Above subsistence minimum	All
Pension	66.9%	14.6%	10.2%	8.2%	100.0%
Unemployment benefit	26.6%	30.2%	23.2%	20.0%	100.0%
Family allowance	12.8%	25.6%	29.5%	32.2%	100.0%
Child care allowance	13.2%	26.7%	29.6%	30.6%	100.0%
Social assistance	11.0%	26.4%	32.3%	30.3%	100.0%
Child care fee	11.5%	25.4%	33.7%	29.4%	100.0%
All social transfers	50.7%	17.1%	15.3%	17.0%	100.0%

While these figures indicate a fair degree of success in ex-ante targeting, they also show that a substantial degree of leakage occurs, i.e. the existence of beneficiaries of social transfers

who were not poor before they received the transfer. Looking at non-pension transfers, Table 22 indicates that 30% of more of current recipients of social transfers in Hungary were not poor (above the subsistence minimum) even before they received the transfer. Only in the case of unemployment benefits, is the figure lower (20%). Table 23 indicates the amount of money this represents: from 16% to 38% of all transfers go to households who were not poor (above subsistence minimum) prior to the receipt of the transfer. If one uses the relative poverty line (2/3 of mean household expenditure) as benchmark rather than the subsistence minimum, the leakage represents from 36% to 65% of funds. This suggests that there is significant room in the system for reallocation in favor of the poor.

Table 23. Ex-ante targeting of social transfers (amounts of money).

	Below minimum pension	Between minimum pension and 2/3 of mean household expenditure	Between 2/3 of mean household expenditure and subsistence minimum	Above subsistence minimum	All
Pension	73.6%	12.1%	7.8%	6.5%	100.0%
Unemployment benefit	36.5%	27.5%	20.0%	16.0%	100.0%
Family allowance	18.4%	25.8%	28.5%	27.3%	100.0%
Child care allowance	14.7%	29.0%	27.9%	28.5%	100.0%
Social assistance	25.1%	29.1%	22.3%	23.5%	100.0%
Child care fee	13.0%	21.6%	27.7%	37.7%	100.0%
All social transfers	64.2%	14.5%	10.6%	10.6%	100.0%

In March 1995, the Government of Hungary announced a series of reform measures, which directly address some of these concerns. They include the introduction of means-testing for the family allowance, which, if implemented effectively, could reduce the leakage in that component significantly. The child care fee and the child care allowance were to be abolished and replaced by a new means-tested allowance. The effect of this on poverty is not immediately obvious. In the next section we explain the Government's measures in more detail and simulate the impact they will have on poverty.

Other measures could also be envisaged. In the case of the family allowance, the upper age limits (16 years, and 20 years for full-time students) seem excessively generous, and a reduction could free up resources for targeted programs. The Government's reforms have made a start in this direction, by reducing the age limit to 6 years if there is one child and 2 or more earners in the household. It would also be possible to tax the family allowance as ordinary income. The progressivity of tax rates would ensure that in net terms a larger share of the allowances would go to the poor.

Even though social assistance is the best targeted of all social transfers, it is intended to be available only to poor households and this is clearly not the case. More effective means-testing should make it fairly easy to at least screen out the richer households, and the freed-up resources could be redistributed to the poor. A scenario of this nature is also simulated in the next section. In general, the role of social assistance as a poverty alleviation tool could be enhanced. Currently, it absorbs only 2.5% of the total resources of the social safety net, and even for the poorest households, it rarely represents more than 5-7% of their expenditure. The forgoing analysis has shown that some poor people fall through the cracks of the system—its impressive coverage notwithstanding. This is especially the case for households with multiple unemployed members and/or where benefits have run out, and where poverty is very high. Such households should be integrated in the social assistance system. Similarly, the reforms of the child care benefits have the risk of creating a small group of very poor affected households, who now are very dependent on those benefits, and who may have no other place to turn to than social assistance. Lastly, among single-women pensioner households, there appears to be a pocket of poverty where social assistance may also need to intervene. A full review of the social assistance delivery system is obviously not within the scope of this paper, but we did want to highlight the potential of the system as poverty alleviation tool.

For those recipients of social transfers who are poor prior to the receipt of the transfer, one can ask the question how many of them are moved above the poverty line as a result of the transfer (Table 24). Because pensions are by far the largest component of the safety net, it is not surprising that they contribute the most to keeping people out of poverty: 62% of households

who receive pensions are lifted above the poverty line (2/3 of mean expenditure) because of the pension.

The second best poverty alleviation effect (43%) is achieved by the child care fee. This might at first sight be surprising given that this is the most regressive transfer in the system. The explanation is that the average amount of the child care fee is quite high: 86,112 HUF/year, because it is a wage-replacement amount. Therefore, the absence of this amount can and does often make the difference between being poor or not. The effect is particularly strong in Budapest, where, as we saw earlier, the child care fee is very high. The abolition of this fee may thus have some poverty implications, even though only a relatively small percentage of households currently receive the fee (4.6%). The simulations in the next section will make this clear.

Unemployment benefits and the family allowance each lift 39% of pre-transfer poor recipients out of poverty. This figure is fairly uniform across different parts of the country, but it varies a lot across types of households. The proper interpretation of this requires combining the figures in Table 24 with the data on incidence of benefits (Table 14) and with the poverty rates. A high poverty alleviation percentage is easier achieved in a small target group. For example, the poverty alleviation effect is strongest among households with a single adult, where the percent of beneficiaries is low. An extreme case is the sole proprietors, where the unemployment benefit lifts 100% of recipients out of poverty. However, only 8% of sole proprietor households receive unemployment benefits, and, as we saw earlier, it is not a very poor group, so that any transfer is more likely to lift the beneficiaries above the poverty line.

Vice-versa, a low poverty alleviation effect can be due to poor targeting, but also to good targeting combined with too low transfer amounts, especially in high poverty groups. This is illustrated by the effect of the unemployment benefit on temporary employee households: they have a high incidence of unemployment benefits, but they are one of the poorest groups, so the benefit leaves many of them in poverty. This is also the case for the family allowance received by households with many children. In the case of households consisting of 2 adults and 3 children

(where coverage of the allowance is 100%), 49% of those who are poor prior to the allowance are lifted above the poverty line. This figure drops to 21% of households with 4 or more children, reflecting that the amount is insufficient, so that poverty among them remains high (as we saw in section 3).

Table 24. Poverty alleviation impact of social transfers.

	Percent of ex-ante poor recipient households who are lifted above the poverty line (2/3 of mean expenditure) as a result of social transfer						
	Pension	Unemployment benefit	Family allowance	Child care allowance	Social assistance	Child care fee	All social transfers
Budapest	68.9	36.2	34.7	43.5	16.6	78.6	65.9
Towns	62.7	41.3	43.1	29.0	17.2	37.5	61.6
Villages	58.3	38.0	37.0	24.2	11.0	40.4	57.2
1 Male adult	64.3	52.6	—	—	0.0	—	61.5
1 Female adult	59.8	81.4	—	—	14.4	—	60.0
1 Adult with children	33.7	73.0	52.7	26.9	23.8	50.1	57.2
2+ Adults	66.3	44.0	36.7	—	15.5	47.2	65.8
2 Adults with 1-2 children	47.6	40.8	41.2	35.3	19.2	51.1	55.8
2 Adults with 3 children	11.5	14.5	49.1	30.3	3.2	36.9	57.0
2 Adults with 4+ children	0.0	0.0	20.9	21.3	10.1	0.0	24.8
3+ Adults with 1-2 children	46.4	24.2	35.7	21.1	11.6	34.4	51.8
3+ Adults with 3+ children	20.3	7.0	17.8	5.7	3.2	0.0	27.4
Permanent employee	66.9	43.9	44.3	40.1	17.7	50.0	62.1
Temporary employee	21.2	22.1	27.7	100.0	15.7	0.0	40.0
Self employed	47.3	29.6	29.5	13.3	9.2	38.7	49.6
Sole proprietor	100.0	100.0	77.2	100.0	0.0	0.0	90.5
Unemployed	40.7	34.7	24.9	10.3	13.4	33.9	43.0
Pensioner	62.7	34.5	24.0	13.4	12.0	43.1	63.1
Child care receiver	13.7	27.8	38.2	9.5	0.0	20.1	44.6
Other	32.9	50.9	37.1	28.8	24.6	56.1	51.3
All	62.3	39.2	39.2	29.7	14.3	42.6	60.7

The figures in Table 24 for social assistance are particularly interesting. As we have seen, social assistance is the most progressively distributed transfer, yet it has the lowest poverty alleviation effect. This is mainly the result of the low amounts of money per recipient household (18,207 HUF/year on average). This supports our earlier argument that the poverty alleviation role of social assistance needs to be strengthened, both by increasing financial resources available to it (from savings in other parts of the system) and by better targeting. We gave some examples of overlooked groups earlier. Currently, social assistance is most effective in single-parent households, where 45% receive assistance and almost one fourth are lifted out of poverty. Incidence is also high among households with 3+ children, but for them social assistance only bridges part of the poverty gap.

Of course, even where it does not lift households above the poverty line, the social safety net can have a major impact on households' living standards. One way to assess this is to show the transfers received by the poor as a fraction of the poverty gap (Table 25). We calculated earlier that the poverty gap is on average 16% of the relative poverty line (2/3 of mean expenditure). In total, the social transfers received by the poor below this benchmark are 288% of the (remaining) poverty gap. This means that without the transfers, the poverty gap would be almost 3 times larger. The last line of Table 25 also shows how the transfers received by non-poor people (above the subsistence minimum) compare to the poverty gap. It turns out that they are almost 4 times larger than the after-transfer poverty gap and larger than the transfers received by the poor. Even after excluding pensions, transfers received by the non-poor are still more than the poverty gap. In fact, the family allowances received by the non-poor would by themselves almost be sufficient to cover the entire poverty gap. This clearly points at the importance of the reforms of the family allowance proposed by the Government. While the announced income benchmark is higher than the subsistence minimum (see next section), its application holds the potential for a significant reallocation of resources towards the poor.

Table 25. Social transfers and the poverty gap.

	Pension	Unemployment benefit	Family allowance	Child care allowance	Social assistance	Child care fee	All social transfers
	Social transfers received by poor households (below 2/3 of mean expenditure) as percentage of poverty gap						
Budapest	230.2	28.5	40.8	4.4	15.0	1.1	320.1
Towns	189.9	32.1	56.0	7.0	11.8	4.8	301.5
Villages	162.6	32.9	50.1	6.7	9.7	5.5	267.5
1 Male adult	366.7	39.9	—	—	16.7	—	423.2
1 Female adult	463.0	2.2	—	—	7.8	—	472.9
1 Adult with children	43.9	7.2	99.6	13.5	23.2	2.5	190.0
2+ Adults	305.1	34.4	15.1	—	9.2	—	363.8
2 Adults with 1-2 children	23.6	44.1	79.2	17.6	7.0	12.4	183.9
2 Adults with 3 children	15.9	38.1	156.7	18.3	27.3	13.6	269.9
2 Adults with 4+ children	2.5	19.7	168.4	18.1	24.4	13.9	246.9
3+ Adults with 1-2 children	67.2	35.1	67.9	6.4	9.2	3.9	189.7
3+ Adults with 3+ children	35.1	18.8	83.0	6.5	28.0	9.9	181.3
Permanent employee	63.9	30.9	72.5	9.0	9.5	5.3	191.0
Temporary employee	55.3	8.5	47.2	—	19.7	0.9	131.6
Self employed	105.3	21.7	60.7	13.5	10.7	2.1	214.1
Sole proprietor	—	—	66.4	—	2.6	62.9	131.9
Unemployed	28.1	79.0	67.7	9.9	16.0	9.0	209.7
Pensioner	424.5	14.4	14.5	0.8	10.2	0.5	465.0
Child care receiver	20.4	39.1	92.4	21.4	7.8	29.6	210.7
Other	133.2	53.1	45.7	4.6	23.7	3.6	263.9
All	182.8	32.0	50.9	6.4	11.2	4.6	287.9
	Social transfers received by non-poor household (above subsistence minimum) as percentage of the poverty gap						
All	247.4	30.1	92.2	8.0	9.1	15.5	402.3

While the figures in this section indicate that social transfers in Hungary have a substantial degree of success in reaching the poor, there remain two problems. First, we have already referred to the leakage in the system, whereby almost one third of non-pension transfers go the

non-poor (Table 23). Second, there remain a number of poor, even among those who do receive social transfers. Table 26 shows the distribution of the beneficiaries of social transfers classified according to their poverty status *after* the receipt of transfers. Clearly, the vast majority of social transfer recipients are not poor after the receipt of transfers. The tables in this section have indicated the extent to which the transfer system contributes to this, by being targeted to households who are poor before the transfer and by closing partially or completely the poverty gap for those who are poor. Using 2/3 of mean expenditure as benchmark, about 27% of households receiving social transfers remain poor. This figure is a bit higher for recipients of pensions and unemployment benefits, and a bit lower for the recipients of family allowances. Obviously, the remaining poor are the people on whom the social safety net needs to focus. The reform proposals discussed in the next section aim to contribute to this.

Table 26. Distribution of beneficiaries of social transfers (ex-post targeting).

	Below minimum pension	Between minimum pension and 2/3 of mean household expenditure	Between 2/3 of mean household expenditure and subsistence minimum	Above subsistence minimum	All
Pension	4.6%	26.1%	36.4%	32.8%	100.0%
Unemployment benefit	6.7%	27.8%	33.0%	32.4%	100.0%
Family allowance	4.4%	18.9%	32.5%	44.2%	100.0%
Child care allowance	6.1%	21.9%	35.7%	36.3%	100.0%
Social assistance	6.8%	25.3%	34.4%	33.5%	100.0%
Child care fee	3.4%	17.8%	34.6%	44.2%	100.0%
Social transfers	4.3%	22.3%	34.7%	38.7%	100.0%

VI. Proposals to Modify the Social Safety Net

In March 1995, the Government of Hungary announced several proposals to modify the social safety net. The main innovation is the introduction of means testing for the family allowance and child care benefits. The details of the proposals are as follows:

- an income cap for eligibility for the family allowance is introduced, equal to 25,000 HUF gross income per month per capita, prior to the receipt of the family allowance;

- if the household contains two wage earners and one child, the family allowance is payable only until the child's sixth birthday;

- the child care allowance and the child care fee are abolished; a new child care benefit is introduced, equal to the minimum pension, and payable until the child's third birthday, in households under the income cap applicable for the family allowance.

Several additional modifications are also proposed, including replacement of the pregnancy allowance, introduction of a new income-supplementing allowance, and a limit to the receipt of unemployment benefits for a maximum of two years (as well as changes in various aspects of the eligibility rules).

For the purpose of this report, we have attempted to simulate the impact of the proposals relating to the family allowance and the child care benefits on the poverty incidence in different types of households. We have also simulated the effect of several additional targeting rules based on the observed correlation between poverty and the number of children in the household, the number of unemployed in the household, and the educational level of the head of household.

Because the government proposals were announced in March 1995, and the HBS data used in this report pertain to 1993, the new income cap was adjusted to reflect inflation over this period. The equivalent amount in 1993 would have been 16,500 HUF of gross income per month per capita. Also, the HBS data at our availability consisted only of household records, and individual data such as age were available only for the head of household. This required some approximations to simulate the effect of changes in the age limits for the family allowance.

Table 27 summarizes the results of the simulations and Tables 28 and 29 show the detailed results for the reforms of the family allowance and for the reforms of the other transfers, respectively. The proposal labeled "FA1" shows the results of the simulations pertaining to the new income cap, and the new age cap for the **family allowance** in case of households with one

child and two earners. The new income cap removes the eligibility of 26% of households, i.e. 74% of households fall below the cap. This figure is much higher though in households with many children, in households headed by unemployed people or child care receivers, and in households where the head has low education, in other words, in households where poverty is high. The effect of introducing the income and age eligibility caps on poverty is slight: with the minimum pension as benchmark, poverty incidence is unchanged in the aggregate, and with the relative benchmark, it rises from 25.3% to 26.5%. Among the very poor, the effect is felt strongest in households with 3 or more adults and 1-2 children and in households of temporary employees. In the latter, poverty rises from 19.3% to 22.1%. While the situation of such households needs to be investigated further, this finding may call for an exemption based on employment status (temporary employees are a small but vulnerable target group).

Table 27. Poverty and fiscal impact of selected reforms of social transfers.

	Below minimum pension (6,400 HUF/mo)		Below 2/3 of mean expenditure (10,129 HUF/mo)		Fiscal difference (%)
	Poverty incidence (%)	Difference in poverty incidence	Poverty incidence (%)	Difference in poverty incidence	
Current situation	4.5%	—	25.3%	—	—
Family allowance proposal 1	4.6%	+0.1	26.1%	+0.8	-22%
Family allowance proposal 2	3.8%	-0.7	24.0%	-1.3	-5%
Family allowance proposal 3	4.3%	-0.2	25.6%	+0.3	-18%
Family allowance proposal 4	4.3%	-0.2	25.7%	+0.4	-19%
Family allowance proposal 5	3.5%	-1.0	23.6%	-1.7	-2%
Child care proposal	5.2%	+0.7	26.6%	+1.3	-57%
Social assessment proposal	3.6%	-0.9	24.7%	-0.6	0.0

Table 28. Poverty impact of selected reforms of the family allowance.

A. Poverty line = minimum pension (6,400 HUF/mo)

	Actual poverty incidence (%)	Family allowance proposals					Percentage of households under new benchmark
		FA1 (difference)	FA2 (difference)	FA3 (difference)	FA4 (difference)	FA5 (difference)	
1 Male adult	4.8	—	—	—	—	—	56
1 Female adult	5.3	—	—	—	—	—	81
1 Adult with 1 child	9.2	—	-3.0	—	-1.5	-4.5	85
2+ Adults	3.3	—	—	—	—	—	68
2 Adults with 1-2 children	2.8	+0.1	+0.1	—	—	-0.1	79
2 Adults with 3 children	6.4	—	-6.4	—	-0.6	-6.4	94
2 Adults with 4+ children	19.0	—	-19.0	—	-5.5	-19.0	100
3+ Adults with 1-2 children	6.5	+0.7	+0.7	-0.5	+0.1	-0.8	85
3+ Adults with 3+ children	21.4	—	-18.1	-7.8	-6.7	-18.1	100
Permanent employee	2.6	+0.2	-0.3	-0.1	+0.1	-0.4	62
Temporary employee	19.3	+2.8	-0.7	+2.8	-2.6	-2.6	94
Self-employed	2.0	+0.7	+0.2	+0.7	+0.4	—	77
Sole proprietor	2.0	—	—	—	—	—	65
Unemployed	17.5	—	-4.6	-2.0	-2.8	-6.9	95
Pensioner	5.7	—	-0.3	—	—	-0.3	90
Child care receiver	23.6	—	-13.6	-3.6	—	-17.2	100
Other	9.5	—	-2.7	-2.7	-4.8	-4.8	86
Less than primary	13.1	—	-1.9	-1.4	-3.6	-3.6	95
Primary	7.3	+0.4	-0.5	-0.1	+0.4	-1.0	84
Vocational	2.9	+0.2	-0.9	+0.1	+0.2	-1.1	76
Special post-primary	9.8	—	—	—	—	—	79
Secondary grammar	1.3	—	—	—	—	—	67
Other secondary	1.2	—	—	—	—	—	60
High school	0.3	—	-0.2	—	—	-0.2	46
University	0.0	—	—	—	—	—	34
All	4.5	+0.1	-0.7	-0.2	-0.2	-1.0	74

Table 28. Poverty impact of selected reforms of the family allowance (continued).

B. Poverty line = 2/3 of mean expenditure (10,129 HUF/mo)

	Actual poverty incidence (%)	Family allowance proposals					Percentage of households under new benchmark
		FA1 (difference)	FA2 (difference)	FA3 (difference)	FA4 (difference)	FA5 (difference)	
1 Male adult	22.6	—	—	—	—	—	56
1 Female adult	34.7	—	—	—	—	—	81
1 Adult with 1 child	24.9	+0.7	-4.9	+0.7	-4.1	-7.1	85
2+ Adults	22.5	+0.4	+0.4	+0.4	+0.4	+0.4	68
2 Adults with 1-2 children	20.4	+0.4	+0.4	+0.1	+0.2	-0.1	79
2 Adults with 3 children	29.8	—	-21.5	-1.4	-3.2	-21.5	94
2 Adults with 4+ children	71.4	—	-57.3	-2.5	—	-57.3	100
3+ Adults with 1-2 children	29.4	+3.3	+3.3	+2.0	+2.9	+1.7	85
3+ Adults with 3+ children	72.7	—	-31.7	-6.3	-1.5	-31.7	100
Permanent employee	18.7	+1.0	-0.6	+0.9	+0.9	-0.7	62
Temporary employee	51.3	—	-3.0	—	-2.1	-5.1	94
Self-employed	22.6	+0.7	-1.3	+0.7	+0.7	-1.3	77
Sole proprietor	4.7	+8.7	+6.0	+8.7	+8.7	+6.0	65
Unemployed	57.4	—	-11.7	-7.2	-1.2	-15.8	95
Pensioner	35.7	—	-0.3	-0.1	-0.7	-0.8	90
Child care receiver	54.8	—	-19.8	-2.6	—	-22.3	100
Other	35.6	+2.1	-1.8	+2.1	-2.3	-2.3	86
Less than primary	51.0	—	-1.9	-0.6	-3.8	-3.8	95
Primary	37.3	+1.0	-3.1	+0.3	+1.0	-3.4	84
Vocational	22.7	+0.9	-0.9	+0.7	+0.9	-1.2	76
Special post-primary	30.4	—	—	—	—	—	79
Secondary grammar	15.1	+1.7	-0.9	+0.9	+1.7	-1.1	67
Other secondary	12.3	+0.6	—	+0.1	+0.6	-1.1	60
High school	5.5	+0.3	+0.3	+0.3	+0.3	+0.3	46
University	5.1	+0.3	+0.3	+0.3	+0.3	+0.3	34
All	25.3	+0.8	-1.3	+0.3	+0.4	-1.7	74

Note: The family allowance reform proposals are as follows:
FA1 (government proposal): means-testing the family allowance at 25,000 HUF gross income per capita per month (in 1995 HUF and before receipt of the allowance) and instituting an age limit of six years in families of two wage earners and one child.
FA2: FA1 plus additional 3,750 HUF/mo per child in households with 3 or more children
FA3: FA1 plus additional 3,750 HUF/mo per child in households with 2 or more unemployed members.
FA4: FA1 plus additional 3,750 HUF/mo per child in households where head has less than primary education.
FA5: FA1 plus additional 3,750 HUF/mo per child if either children, unemployment, or education criterion in, respectively, FA2, FA3, or FA4 is met.

The introduction of the income cap imples a budgetary saving of 22%, and some of these funds could be reallocated and targeted to high poverty groups. (In practice, the savings are likely to be less, because the required means-testing will increase administrative costs.). The poverty profile in section III identified pockets of high poverty in households with 3 or more children, in households where there are 2 or more unemployed members, and in households where the head has less than primary education. We have therefore simulated the effect of increasing the family allowance for households meeting these conditions, by 3,750 HUF/mo per child. This is a very large increase—the amount corresponds to that currently received from the third child on, in two-parent households. The simulation results show that, in practice, such large increases may not be needed, but it is useful to show the upper limit of what can be achieved with indicator-targeting based on easily observed socio-economic characteristics of households and using the family allowance as tool. The simulations are labeled FA2 to FA5. The first three simulations show the impact of an increased family allowance for each of the three conditions (3 or more children, 2 or more unemployed, less than primary education) separately, while FA5 shows the impact of increasing the allowance if *either* one of the conditions is met.

Only targeting by the number of children leads to a significant reduction in overall poverty incidence (by 0.7 percentage points relative to the minimum pension and by 1.3 percentage points relative to the higher benchmark). The other two modes of targeting are virtually poverty-neutral in the aggregate. Of course, different types of households are affected differently. In the case of targeting by the number of children (FA2), poverty in large households disappears entirely, indicating that such targeting can be very effective in alleviating poverty, but also indicating that the amounts in this simulation are too generous. (Further simulations could define amounts which, for example, reduce poverty incidence in households with 3+ children to the level found in households with 1-2 children.)

Since there is a fairly strong positive correlation between the number of children in a household and the number of unemployed, the FA2 scenario also leads to poverty reduction in households with an unemployed head. Another target group, households with a head with less than primary education, also benefit although to a lesser degree.

Targeting by the number of unemployed (FA3) has the strongest effect in the largest households—those with 3+ adults, since unemployment is concentrated there. Targeting by education level (FA4) also helps these households, in addition to those with 2 adults and many children, and of course households where the head has less than primary education. Targeting by education is also the only approach which leads to significant poverty reduction among the temporary employees.

These results suggest that a case can be made for combining the different criteria (FA5) since this reaches all the desired target groups. As stated earlier, the optimal amounts would need to be determined, and the simulation in Table 28 must certainly be seen as an upper limit of what can be achieved. The results suggest that significant poverty reduction can be achieved with indicator targeting, and that this can be done within the existing limit of the family allowance budget (in fact, a 2% savings would be achieved). The results also suggest though that using a family allowance, i.e. basing the amount of social transfers on the number of children, is not always efficient from the poverty perspective. A general income supplement, or increased social assistance may be more effective in reaching households where unemployment or low education is the main cause of poverty.

As a final comment on Table 28, we point out that the pattern of outcomes of the simulations is altered in some key places when the higher relative poverty benchmark is used. For example, the introduction of the income cap affects the sole proprietor households quite heavily, more than doubling their poverty incidence.

Next to the family allowance, the government reform proposals affect mainly the child care allowance and fee. The abolishment of these and the institution of the **new child care benefit** increase poverty from 4.5% to 5.2% below the minimum pension, and from 25.3% to 26.6% below the relative poverty line (Table 29). Most seriously affected are households with many children, with unemployed heads, and, by definition, those dependent on child care benefits. For example, in households with 2 adults and 4+ children, poverty incidence increases from 19%

to 27%, and in households with 3+ adults and 3+ children, poverty incidence almost doubles to 40%. There is thus a risk that this part of the reform proposal will hurt some poor groups. The replacement benefit appears to be too low and/or insufficiently targeted towards the poor. Since the new benefit scheme would lead to fiscal savings in the order of 57%, a targeted reallocation of some of these savings would be entirely possible. This could be done by proposals similar to those which were simulated in scenarios FA2 to FA5.

Alternatively, as we have argued earlier, **social assistance** could be given a greater role in poverty alleviation. It is currently the most progressively distributed transfer, and, after unemployment benefits, the best targeted towards the poor. It should be possible to improve the means-testing for social assistance, and if, for example, leakage of funds to households above the government's new income cap could be eliminated, it would create a fund which could be reoriented towards the poorest recipients. The amounts saved under such scenario constitute 36% of social assistance now received by those below the relative poverty line and 136% of social assistance received by households below the minimum pension. Allocating these funds proportionately to current receipts, would reduce poverty respectively by 0.6 and 0.9 percentage points (Table 29). It would benefit especially one-parent households, very large households, households with unemployed heads and those dependent on child care benefits, and households with low educated heads.

The simulation results in this section suggest that a combination of indicator targeting and an increased role of social assistance could be very effective in Hungary in reducing the poverty incidence in those groups where it is currently highest. The government's current proposals would free up the resources to do this.

Table 29. Poverty impact of selected reforms of child care allowance and fee, and social assistance.

	A. Poverty line = minimum pension (6,400 HUF/mo)			B. Poverty line = 2/3 of mean expenditure (10,129 HUF/mo)		
	Actual poverty incidence (%)	Proposal child care allowance and fee (difference)	Proposal social assistance (difference)	Actual poverty incidence (%)	Proposal child care allowance and fee (difference)	Proposal social assistance (difference)
1 Male adult	4.8	—	-0.2	22.6	—	-0.2
1 Female adult	5.3	—	-0.5	34.7	—	-0.5
1 Adult with 1 child	9.2	—	-4.8	24.9	+1.4	-1.1
2+ Adults	3.3	—	-0.6	22.5	+0.1	-0.5
2 Adults with 1-2 children	2.8	+1.0	-0.4	20.4	+3.1	-0.3
2 Adults with 3 children	6.4	+1.9	-2.0	29.8	+4.4	-3.6
2 Adults with 4+ children	19.0	+8.2	-2.6	71.4	+6.8	-5.6
3+ Adults with 1-2 children	6.5	+0.2	-1.0	29.4	+1.2	-0.7
3+ Adults with 3+ children	21.4	+18.8	-11.4	72.7	+2.4	—
Permanent employee	2.6	+0.4	-0.6	18.7	+1.8	-0.5
Temporary employee	19.3	—	-2.5	51.3	-0.5	—
Self-employed	2.0	+1.3	-0.5	22.6	+0.1	-0.4
Sole proprietor	2.0	—	—	4.7	+1.0	—
Unemployed	17.5	+4.2	-3.2	57.4	+2.0	-2.5
Pensioner	5.7	+1.8	-0.8	35.7	+0.2	-0.6
Child care receiver	23.6	+5.2	-7.5	54.8	-0.2	—
Other	9.5	-2.2	-0.6	35.6	+1.6	-1.9
Less than primary	13.1	-0.2	-2.3	51.0	+1.0	-1.0
Primary	7.3	+1.4	-1.2	37.3	+1.0	-1.0
Vocational	2.9	+0.7	-1.0	22.7	+2.0	-0.6
Special post-primary	9.8	—	—	30.4	+2.5	—
Secondary grammar	1.3	+0.8	-0.2	15.1	+1.1	-0.6
Other secondary	1.2	+0.8	—	12.3	+1.2	-0.2
High school	0.3	-0.3	-0.3	5.5	+2.0	-0.4
University	0.0	—	—	5.1	—	—
All	4.5	+0.7	-0.9	25.3	+1.3	-0.6

Note: Proposal child care allowance and fee: child care allowance and fee are abolished; child care fee is replaced by a payment of 6,400 HUF/mo (= minimum pension) up to the child's third birthday, if recipient household has income less than 25,000 HUF/mo per capita (prior to the receipt of the family allowance).

Proposal social assistance: social assistance is eliminated for households with income over 25,000 HUF/mo per capita (prior to the receipt of the family allowance), and the saved funds are reallocated to the poor in proportion to existing social assistance payments.

ANNEX TABLES

Table A1. Distribution of disposable household income and household expenditure.

Ventile (5% of population)	Disposable household income (HUF/year)	Household expenditure (HUF/year)
1	71,045	66,163
2	101,082	86,389
3	113,658	98,017
4	122,574	108,335
5	130,629	117,051
6	137,708	125,505
7	144,465	133,640
8	151,513	140,742
9	158,202	148,453
10	164,338	156,343
11	170,905	165,492
12	178,650	174,028
13	186,886	183,285
14	195,926	194,499
15	207,869	207,062
16	220,344	221,681
17	236,186	242,000
18	258,577	269,712
19	294,229	314,074
20	408,324	496,758
Gini-coefficient	0.214	0.262

Note: The first column is the distribution of disposable household income per equivalent adult over income ventiles (5% of the population); the second column is the distribution of household expenditure per equivalent adult over expenditure ventiles (5% of the population).

Table A2. The composition of household income (percentage).

	Wage income	Self-employment income	Property income	Social transfers	Private transfers	Other income	Total	Mean gross income (HUF/year)	Taxes and contributions	Transfers	Disposable income as a percentage of gross income
Budapest	61.8	6.4	0.3	28.0	2.4	1.2	100.0	520,620	21.5	1.6	76.9
Towns	56.4	9.9	0.3	29.3	3.0	1.2	100.0	490,739	17.8	1.7	80.5
Villages	46.2	15.0	0.5	34.5	2.3	1.5	100.0	445,633	13.3	1.7	85.0
1 Male adult	45.6	14.0	0.5	37.0	1.2	1.6	100.0	235,404	16.5	4.9	78.6
1 Female adult	23.3	6.6	0.8	64.3	3.4	1.6	100.0	178,059	8.0	3.1	88.9
1 Adult with children	53.2	5.1	0.1	29.2	11.3	1.1	100.0	350,888	15.0	1.4	83.7
2+ Adults	51.8	10.5	0.4	34.4	1.7	1.2	100.0	495,094	16.5	1.9	81.6
2 Adults with 1-2 children	64.1	11.3	0.2	19.0	4.1	1.3	100.0	592,069	19.9	1.4	78.7
2 Adults with 3 children	53.5	9.6	0.3	32.5	2.7	1.4	100.0	643,664	16.5	0.8	82.6
2 Adults with 4+ children	36.7	8.0	0.0	53.2	1.0	1.1	100.0	541,688	9.4	0.4	90.2
3+ Adults with 1-2 children	58.6	13.7	0.3	24.4	1.8	1.2	100.0	710,811	18.6	0.9	80.5
3+ Adults with 3+ children	33.2	5.7	0.0	54.8	3.3	3.0	100.0	609,271	8.1	0.6	91.4
Below min. pension	29.1	6.6	0.2	61.3	1.5	1.3	100.0	253,602	6.2	1.1	92.7
Btwn min. pension and 2/3 mean exp.	38.5	8.6	0.2	49.9	1.7	1.1	100.0	319,448	9.6	1.7	88.6
Between 2/3 mean exp. and subsistence min.	49.5	10.0	0.2	37.2	2.1	1.0	100.0	418,523	14.1	1.7	84.2
Above subsistence min.	61.6	12.0	0.5	21.3	3.2	1.5	100.0	634,653	21.0	1.7	77.3

Table A2. The composition of household income (percentage) (continued).

	Wage income	Self-employment income	Property income	Social transfers	Private transfers	Other income	Total	Mean gross income (HUF/year)	Taxes and contributions	Transfers	Disposable income as a percentage of gross income
Permanent employee	70.7	8.2	0.3	17.1	2.6	1.2	100.0	640,724	21.7	1.4	76.9
Temporary employee	44.6	6.9	0.4	35.5	11.7	0.9	100.0	314,576	3.8	1.1	95.1
Self employed	24.2	51.3	1.3	19.1	2.2	2.0	100.0	544,471	16.5	1.6	81.9
Sole proprietor	24.6	60.2	0.8	12.4	1.6	0.3	100.0	758,746	24.7	1.1	74.2
Unemployed	15.5	11.9	0.2	65.9	4.1	2.4	100.0	298,214	4.6	1.4	94.0
Pensioner	4.3	9.0	0.6	83.0	1.9	1.4	100.0	251,258	1.4	2.9	95.6
Child care receiver	19.2	8.7	0.3	57.4	13.3	1.1	100.0	344,534	2.4	1.5	96.0
Other	45.3	9.7	0.6	35.3	5.4	3.6	100.0	366,944	10.9	1.4	87.6
Less than primary	12.1	10.8	0.2	73.8	1.8	1.3	100.0	230,359	2.9	2.7	94.3
Primary	42.6	10.8	0.7	43.0	1.6	1.4	100.0	377,833	11.2	1.8	86.9
Vocational	59.1	13.1	0.3	22.6	4.0	0.9	100.0	552,667	17.4	1.5	81.1
Special post primary	58.7	7.6	0.2	30.2	1.9	1.4	100.0	432,899	15.2	1.7	83.1
Secondary grammar	56.6	10.1	0.4	28.5	2.8	1.6	100.0	518,733	18.0	1.6	80.4
Other secondary	62.3	10.7	0.3	23.2	2.3	1.2	100.0	596,892	20.9	1.5	77.6
High school	69.2	7.8	0.2	19.2	2.3	1.2	100.0	705,002	24.4	1.7	73.9
University	68.4	8.4	0.3	18.5	2.4	1.9	100.0	815,036	26.6	1.6	71.8
All	54.1	10.8	0.4	30.8	2.6	1.3	100.0	480,431	17.1	1.7	81.2

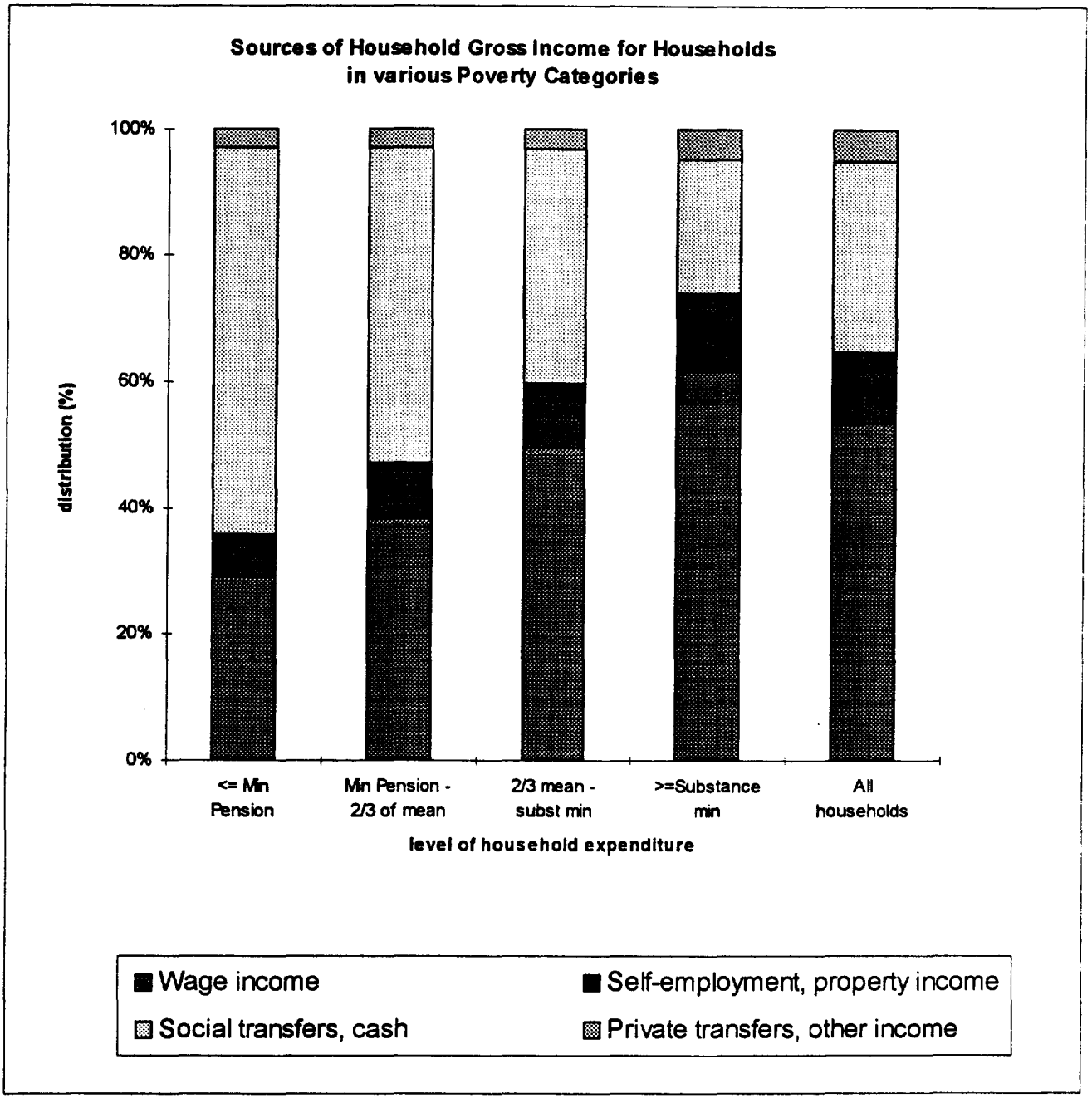

Sources of Household Gross Income for Households
in various Poverty Categories
100%
80%
60%
40%
20%
0%
distribution (%)
<= Min Pension
Min Pension - 2/3 of mean
2/3 mean - subst min
>=Substance min
All households
level of household expenditure
Wage income
Self-employment, property income
Social transfers, cash
Private transfers, other income

Table A3. The composition of social transfers (percentage).

	Pension	Unemployment benefit	Family allowance	Child care allowance	Social assistance	Child care fee	All social transfers
Budapest	71.0	5.6	16.2	1.7	2.9	2.6	100.0
Towns	62.0	8.4	22.1	1.9	3.0	2.7	100.0
Villages	61.2	10.9	20.1	2.4	2.7	2.7	100.0
1 Male adult	89.5	8.6	—	—	1.7	—	100.0
1 Female adult	97.5	1.0	—	—	1.5	—	100.0
1 Adult with children	12.6	7.9	62.6	4.6	10.3	2.0	100.0
2+ Adults	84.8	7.4	5.4	0.0	1.8	0.6	100.0
2 Adults with 1-2 children	9.7	16.8	51.8	8.0	3.6	10.2	100.0
2 Adults with 3 children	3.8	7.1	63.8	8.5	6.2	10.6	100.0
2 Adults with 4+ children	1.3	6.6	69.0	7.5	10.4	5.1	100.0
3+ Adults with 1-2 children	33.9	11.8	43.7	2.9	4.5	3.0	100.0
3+ Adults with 3+ children	22.4	9.8	46.6	3.9	13.3	3.9	100.0
Below min. pension	52.3	14.3	21.2	3.4	6.6	2.1	100.0
Btwn min. pension and 2/3 mean exp.	65.6	10.5	17.0	2.0	3.4	1.5	100.0
Btwn 2/3 mean exp. and subsistence min.	65.9	8.3	18.8	2.0	2.7	2.3	100.0
Above subsistence min.	61.5	7.5	22.9	92.0	2.3	3.9	100.0
Permanent employee	37.8	11.2	38.5	3.8	3.6	5.2	100.0
Temporary employee	34.8	12.1	35.9	0.9	13.7	2.7	100.0
Self employed	34.1	9.8	43.7	4.0	2.9	5.4	100.0
Sole proprietor	21.2	5.4	54.3	5.8	10.1	3.2	100.0
Unemployed	15.4	43.9	25.9	4.0	6.0	4.7	100.0
Pensioner	94.6	1.9	1.9	0.1	1.4	0.1	100.0
Child care receiver	14.8	14.1	42.7	12.3	3.9	12.1	100.0
Other	39.1	23.6	20.9	3.2	10.1	3.1	100.0
Less than primary	88.9	3.7	4.3	0.3	2.4	0.4	100.0
Primary	70.8	9.0	14.8	1.5	2.9	1.1	100.0
Vocational	34.3	14.4	37.2	4.9	4.1	5.0	100.0
Special post primary	58.9	13.7	18.9	3.4	1.2	3.9	100.0
Secondary grammar	65.7	7.2	21.1	1.1	3.4	1.5	100.0
Other secondary	57.2	9.6	24.4	2.4	2.1	4.3	100.0
High school	60.4	5.7	26.8	1.3	2.4	3.4	100.0
University	62.8	5.8	19.8	2.1	1.5	8.1	100.0
All	63.6	8.7	20.1	2.1	2.8	2.7	100.0

Table A4. The composition of household expenditure (percentage)

	Food	Beverages and tobacco	Clothing and footwear	Housing	Housing maintenance	Medical and health expenses	Transportation and communication	Education, recreation	Construction, purchase of dwellings	Other expenses	Total exp.	Total exp. (HUF/year)
Budapest	31.2	6.0	7.1	13.5	5.3	5.0	14.1	7.5	7.1	3.2	100.0	399,104
Towns	32.8	5.6	8.1	15.0	5.7	4.0	12.8	6.4	6.4	3.2	100.0	394,110
Villages	36.3	6.3	7.1	13.6	5.7	3.0	12.8	4.7	7.7	2.7	100.0	377,344
1 Male adult	34.8	10.4	5.0	17.1	4.6	3.6	12.0	6.2	3.0	3.5	100.0	199,575
1 Female adult	37.2	3.7	4.8	23.6	6.1	5.5	5.9	5.1	4.8	3.3	100.0	162,784
1 Adult with children	32.4	3.9	9.5	16.7	5.2	3.2	9.0	7.6	10.1	2.3	100.0	322,701
2+ Adults	34.9	6.5	6.7	14.4	5.7	4.2	12.7	5.7	6.0	3.2	100.0	388,573
2 Adults with 1-2 children	30.5	5.4	8.8	12.5	5.7	3.4	15.4	6.7	8.7	2.8	100.0	488,743
2 Adults with 3 children	33.2	5.7	7.7	12.2	5.2	3.1	12.2	6.2	12.3	2.2	100.0	553,108
2 Adults with 4+ children	41.5	5.5	9.5	12.4	6.4	3.9	4.5	5.2	8.2	2.9	100.0	442,495
3+ Adults with 1-2 children	33.9	5.7	8.9	12.1	5.2	3.1	14.5	6.3	7.2	3.2	100.0	566,333
3+ Adults with 3+ children	43.7	9.0	7.4	11.5	6.1	3.1	7.0	4.2	5.3	2.8	100.0	482,599
Below min. pension	49.8	8.1	5.5	18.7	3.9	3.9	2.7	3.6	2.3	1.4	100.0	149,203
Btwn min. pension and 2/3 mean exp.	44.9	7.6	6.0	18.5	4.4	4.0	5.1	4.2	3.1	2.3	100.0	214,261
Btwn 2/3 mean exp. and subsistence min.	39.5	6.8	7.1	16.9	5.0	3.9	8.8	5.3	4.0	2.7	100.0	313,302
Above subsistence min.	28.6	5.2	8.0	11.9	6.2	3.8	16.8	6.8	9.3	3.4	100.0	562,545

Table A4. The composition of household expenditure (percentage) (continued).

	Food	Beverages and tobacco	Clothing and footwear	Housing	Housing maintenance	Medical and health expenses	Transportation and communication	Education, recreation	Construction, purchase of dwellings	Other expenses	Total exp.	Total exp. (HUF/year)
Permanent employee	31.8	6.0	8.4	12.9	5.6	3.6	14.9	6.7	6.9	3.2	100.0	481,424
Temporary employee	41.2	11.0	7.3	12.1	3.3	4.1	11.1	3.3	5.1	1.4	100.0	295,082
Self employed	28.3	4.8	7.9	11.3	6.0	3.3	17.6	6.3	11.3	3.3	100.0	570,866
Sole proprietor	26.7	5.9	7.1	11.4	6.0	4.1	25.3	5.8	2.7	5.0	100.0	699,835
Unemployed	39.2	7.8	6.6	15.0	5.2	3.6	7.0	4.3	9.3	1.7	100.0	309,657
Pensioner	40.6	5.9	4.7	18.8	5.9	4.9	6.6	4.5	5.5	2.7	100.0	232,912
Child care receiver	31.8	4.4	5.8	13.9	5.1	3.4	6.6	2.8	24.4	1.9	100.0	386,455
Other	34.0	6.0	7.8	17.2	4.9	5.0	9.6	5.2	7.9	2.5	100.0	331,689
Less than primary	44.6	6.6	4.9	18.3	5.9	4.5	4.1	3.2	5.5	2.5	100.0	203,048
Primary	39.4	7.1	6.6	15.9	5.4	3.6	8.6	5.1	5.4	3.0	100.0	313,339
Vocational	33.8	6.5	8.1	13.5	5.6	3.4	13.3	5.7	7.0	3.1	100.0	448,921
Special post primary	33.0	7.2	7.8	14.6	4.4	5.1	9.2	6.0	9.8	3.1	100.0	344,284
Secondary grammar	30.7	5.2	7.6	13.9	5.5	4.0	12.5	6.9	10.9	2.8	100.0	434,207
Other secondary	30.0	5.2	7.8	13.0	5.9	3.8	17.0	6.9	7.4	2.9	100.0	480,887
High school	26.5	4.7	8.7	12.4	6.0	4.6	19.1	8.5	5.6	4.0	100.0	539,640
University	25.8	4.2	8.3	11.4	5.4	4.2	19.6	7.7	9.9	3.4	100.0	587,840
All	33.7	6.0	7.5	14.1	5.6	3.8	13.1	6.1	7.0	3.1	100.0	388,963

REFERENCES

Andorka, R., Z. Speder, and I. Toth. 1995. "Development in Poverty and Income Inequalities in Hungary, 1992-1994." Budapest: TARKI. (mimeo)

Deaton, A. and J. Muelbauer. 1980. *Economics and Consumer Behavior*. Cambridge: Cambridge University Press.

Grootaert, C. 1995. "Poverty and Social Transfers in Poland." Policy Research Working Paper, No. 1440. Washington D.C.: The World Bank.

Grootaert, C., and R. Kanbur. 1990. "Policy-oriented Analysis of Poverty and the Social Dimensions of Structural Adjustment—A Methodology and Proposed Application to Cote d'Ivoire, 1985-88." Social Dimensions of Adjustment Working Paper No. 1. Washington, D.C.: The World Bank.

Kanbur, R. 1987. "Measurement and Alleviation of Poverty." *IMF Staff Papers*, Vol. 34, No. 1.

Milanovic, B. 1992. "Poverty in Eastern Europe in the Years of Crisis, 1978 to 1987: Poland, Hungary, and Yugoslavia". *World Bank Economic Review*, Vol. 5 (2).

Ministry of Finance. 1993. "New Regulations on Social Insurance and Other Social Benefits." *Public Finance in Hungary*, No. 120. Budapest.

Revesz, T. 1994. "An Analysis of the Representativity of the Hungarian Household Budget Survey Samples". Department of Applied Economies, University of Cambridge. (mimeo)

Szivos, P. 1994. "Evolution of Poverty in Hungary, 1987-1992". Budapest: Central Statistical Office. (mimeo)

Szivos, P. 1995. "Profile of Poverty in Hungary, 1993". Budapest: Central Statistical Office. (mimeo)

Toth, I., R. Andorka, M. Forster, and Z. Speder. 1994. "Poverty, Inequalities and the Incidence of Social Transfers in Hungary, 1992-1993". Budapest: TARKI. (mimeo)

Van De Walle, D., M. Ravallion, and M. Gautam. 1994. "How Well Does the Social Safety Net Work? The Incidence of Cash Benefits in Hungary, 1987-1989". Living Standards Measurement Study Working Paper, No. 102. Washington, D.C.: The World Bank.

World Bank. 1995. "Hungary—Structural Reforms for Sustainable Growth." Draft Report, No. 13577—HU. Washington, D.C.

World Bank. 1992. "Hungary—Reform of Social Policy and Expenditure." A World Bank Country Study. Washington, D.C.

Policy Research Working Paper Series

	Title	Author	Date	Contact for paper
WPS1746	The Role of Long-Term Finance: Theory and Evidence	Gerard Caprio, Jr. Asli Demirgüç-Kunt	April 1997	P. Sintim-Aboagye 38526
WPS1747	Protection and Trade in Services: A Survey	Bernard Hoekman Carlos A. Primo Braga	April 1997	J. Ngaine 37947
WPS1748	Has Agricultural Trade Liberalization Improved Welfare in the Least-Developed Countries? Yes	Merlinda D. Ingco	April 1997	J. Ngaine 37947
WPS1749	Applying Economic Analysis to Technical Assistance Projects	Gary McMahon	April 1997	C. Bernardo 37699
WPS1750	Regional Integration and Foreign Direct Investment: A Conceptual Framework and Three Cases	Magnus Blömstrom Ari Kokko	April 1997	J. Ngaine 37947
WPS1751	Using Tariff Indices to Evaluate Preferential Trading Arrangements: An Application to Chile	Eric Bond	April 1997	J. Ngaine 37947
WPS1752	Ghana's Labor Market (1987–92)	Sudharshan Canagarajah Saji Thomas	April 1997	B. Casely-Hayford 34672
WPS1753	Can Capital Markets Create Incentives for Pollution Control?	Paul Lanoie Benoît Laplante	April 1997	R. Yazigi 37176
WPS1754	Research on Land Markets in South Asia: What Have We Learned?	Rashid Faruqee Kevin Carey	April 1997	C. Anbiah 81275
WPS1755	Survey Responses from Women Workers in Indonesia's Textile, Garment, and Footwear Industries	Mari Pangestu Medelina K. Hendytio	April 1997	J. Israel 85117
WPS1756	World Crude Oil Resources: Evidence from Estimating Supply Functions for 41 Countries	G. C. Watkins Shane Streifel	April 1997	J. Jacobson 33710
WPS1757	Using Economic Policy to Improve Environmental protection in Pakistan	Rashid Faruqee	April 1997	C. Anbiah 81275
WPS1758	The Restructuring of Large Firms in Slovakia	Simeon Djankov Gernard Pohl	April 1997	F. Hatab 35835
WPS1759	Institutional Obstacles to Doing Business: Region-by-Region Results *from a Worldwide Survey of* the Private Sector	Aymo Brunetti Gregory Kisunko *Beatrice Weder*	April 1997	M. Geller 31393

Policy Research Working Paper Series

	Title	Author	Date	Contact for paper
WPS1760	Credibility of Rules and Economic Growth: Evidence from a Worldwide Survey of the Private Sector	Aymo Brunetti Gregory Kisunko Beatrice Weder	April 1997	M. Geller 31393
WPS1761	Bending the Rules: Discretionary Pollution Control in China	Susmita Dasgupta Mainul Huq David Wheeler	May 1997	E. de Castro 89121
WPS1762	Strategies for Pricing Publicly Provided Health Services	Paul J. Gertler Jeffrey S. Hammer	May 1997	C. Bernardo 31148
WPS1763	China and the Multilateral Investment Guarantee Agency	Yushu Feng	May 1997	E. Beers 36175
WPS1764	A Reversal of Fortune for Korean Women: Explaining 1983's Upward Turn in Relative Earnings	Yaba vab der Neykeb Rodgers	May 1997	D. Ballantyne 87198
WPS1765	Explaining Agricultural and Agrarian Policies in Developing Countries	Hans P. Binswanger Klaus Deininger	May 1997	D. Housden 36637
WPS1766	New Systems for Old Age Security: Theory, Practice, and Empirical Evidence	Estelle James	May 1997	S. Khan 33651
WPS1767	Pension Reform: Is There a Tradeoff between Efficiency and Equity?	Estelle James	May 1997	S. Khan 33651
WPS1768	Is There a Quantity-Quality Tradeoff as Enrollments Increase? Evidence from Tamil Nadu, India	P. Duraisamy Estelle James Julia Lane Jee-Peng Tan	May 1997	S. Khan 33651
WPS1769	Information, Incentives, and Commitment: An Empirical Analysis of Contracts between Government and State Enterprises	Mary M. Shirley L. Colin Xu	May 1997	P. Sintim-Aboagye 38526
WPS1770	Poverty and Social Transfers in Hungary	Christiaan Grootaert	May 1997	G. Ochieng 31123